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ABSTRACT

This hearing was held in response to a request from the Congressional Black Caucus, which asked the subcommittees to find out if the Department of Health and Human Services (HHS) was doing everything possible to reduce infant mortality, especially the high death rate experienced by Blacks. The hearing opened with statements by both subcommittee chairmen, after which congressional Representatives and the chief of Maternal and Child Health, Michigan Department of Public Health testified to the benefits of various maternal and child programs and the effects of federal and state funding cuts on these programs. The assistant secretary for HHS discussed current programs and stated that more research was necessary to find out the causes of the discrepancy between Black and White mortality rates. Questions to him focused on planned merging of existing programs into block grants and subsequent loss of funds, the possibilities for increasing the accessibility of health services and nutrition programs, coordinating research efforts with the Public Health Service, and problems in receiving information from his agency. Representatives from the Children's Defense Fund, the Food Research and Action Center, Public Advocates, Inc., and Satellite Clinic, Harlem Hospital also testified. Material submitted for the record was from organizations which gave oral testimony and from the American College of Nurse-Midwives, the Harvard School of Public Health, and the Mexican American Legal Defence and Educational Fund. (CB)

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INFANT MORTALITY RATES: FAILURE TO CLOSE THE BLACK-WHITE GAP

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HEARING

BEFORE THE

SUBCOMMITTEE ON
OVERSIGHT AND INVESTIGATIONS

AND THE

SUBCOMMITTEE ON
HEALTH AND THE ENVIRONMENT

OF THE

COMMITTEE ON
ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES

NINETY-EIGHTH CONGRESS

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INFANT MORTALITY RATES: FAILURE TO CLOSE THE BLACK-WHITE GAP

FRIDAY, MARCH 16, 1984

House of Representatives,
Committee on Energy and Commerce,
Subcommittee on Oversight and Investigations, and
Subcommittee on Health and the Environment,
Washington, DC.

The subcommittees met, pursuant to notice, at 9:50 a.m., in room 2123, Rayburn House Office Building, Hon. John D. Dingell (chairman, Subcommittee on Oversight and Investigations) and Hon. Henry A. Waxman (chairman, Subcommittee on Health and the Environment) presiding.

Mr. **Dingell.** The two subcommittees will come to order.

This morning the Subcommittees on Oversight and Investigations and Health and the Environment are holding a joint hearing on infant mortality and the persistent discrepancy between blacks and whites in regard to infant mortality.

Today's hearing comes in response to a request from Congressman Julian Dixon of the Congressional Black Caucus. The Caucus has asked us to find out if the Department of Health and Human Services is doing all that can be done to reduce infant mortality and bring down the particularly high death rate experienced by blacks and if not, why not.

The Chair will call the attention of all present to the posters which will be indicated by the staff which show—it is the large document on the poster near the Chair. That shows that black infant mortality remains approximately twice the white race rate in the United States. In our national rate the United States ranks behind Ireland, Australia, and Canada. Blacks in this country experience infant deaths at rates comparable for Poland and Portugal and worse than the rates for either Jamaica or Cuba.

The infant mortality is far more than a statistical indicator. Healthy babies are an important national goal. Healthy babies avoid the turmoil and destructive effects on a family that accompany an infant death or a sick or disabled child and healthy infants become productive and healthy adults.

The Chair expects that we will all learn publicly for the first time that the Assistant Secretary for Health no longer projects that we will meet the objectives set for black infant mortality only 4 years ago. The Chair will now call attention to a second chart that shows the kind of geographic variation that exists and that is the second poster which is the second farthest from the Chair's right on from our witnesses and from the audience's left.

If our witnesses and the audience will look at the 1978 to 1980 ban experience for blacks and whites in several cities I think me interesting things will be gleaned, and I would observe parenetically that even in Detroit, even the whites have a clearly unceptably high rate of infant deaths.

[The charts referred to follow:]

Figures and Charts

a. Infant Mortality Rates by Race for the U.S.: 1978-1980

average number of deaths before age 1 per 1000 live births, estimated for period by NCHS, DHHS

b. Infant Mortality Rates by Race for Selected Cities: 1978-1980

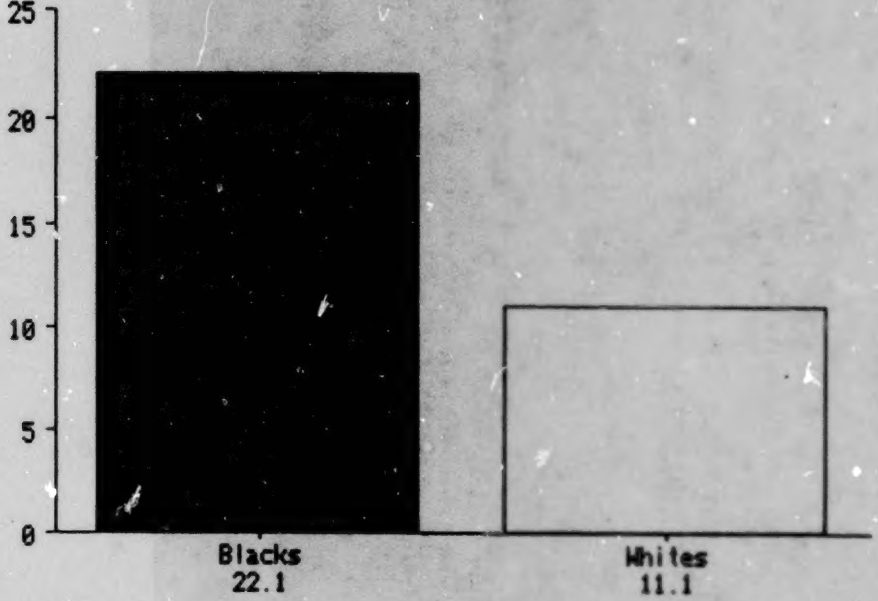
table represents the following rates per 1000 live births (source: NCHS, DHHS)

	Whites	NonWhites
Chicago	13.16	22.96
Detroit	14.80	24.43
Los Angeles	11.13	18.67
Pittsburgh	12.43	27.57
Washington, DC	12.23	27.07

c. Estimate of "Excess" Deaths to Black Infants in First Year of Life: 1984

calculations are based on the assumption that the infant mortality rate for Whites of 10.50 in 1981 declined 3.5% each year to 9.44/1000 live births in 1984 and that the rate for Blacks of 20.0 in 1981 experienced a similar decline to 17.97/1000 live births in 1984 with 590,000 infants born to Blacks in 1984 (1981 rates provided by NCHS, DHHS)

the "excess" Black deaths represent a difference between the outcome using the estimated Black 1984 infant mortality rate and using the White rate



Infant Mortality Rates By Race For The U.S.:
1978 - 1980 Average

Source: NCHS

Table 13. Infant mortality rates and average annual percent change: Selected countries, 1975 and 1980

[Data are based on National Vital Statistics Systems]

Country	Infant mortality rate		Average annual percent change 1975-80
	1975	1980[1]	
	Infant deaths per 1,000 live births		
Sweden	8.6	6.7	-4.9
Japan	10.0	7.4	-5.8
Finland	9.6	7.7	-5.4
Switzerland	10.7	8.5	-5.6
Netherlands	10.6	8.6	-4.1
Denmark	10.3	8.8	-3.9
Norway	11.1	8.8	-5.6
France	13.8	9.9	-6.4
Australia	14.3	11.0	-5.1
Spain	18.9	11.1	-10.1
Belgium	16.1	11.2	-8.7
Singapore	13.9	11.7	-3.4
Canada	14.3	11.9	-5.9
England and Wales	15.7	11.9	-5.6
German Democratic Republic	15.9	12.1	-5.3
United States	16.1	12.6	-4.8
New Zealand	16.0	12.6	-5.8
German Federal Republic	19.8	13.5	-9.1
Austria	20.5	14.1	-7.2
Israel	23.0	14.1	-8.3
Italy	21.2	14.3	-7.6
Jamaica	23.2	16.2	-11.3
Czechoslovakia	20.8	16.6	-4.4
Greece	24.0	18.7	-6.0
Cuba	27.3	19.1	-8.5

[1] Data for Canada and Jamaica refer to 1978. Data for Finland, Switzerland, Denmark, Norway, Belgium, New Zealand, Federal Republic of Germany, Greece, and Cuba refer to 1979. Data for all other countries refer to 1980; of these, the U.S. figure is final and all others are provisional.

NOTE: Countries are ranked from the lowest to highest infant mortality rate based on the latest data available.

SOURCE: United Nations: Demographic Yearbook 1980. Pub. No. ST/ESA/STAT/SER.R/10. New York. United Nations, 1982.

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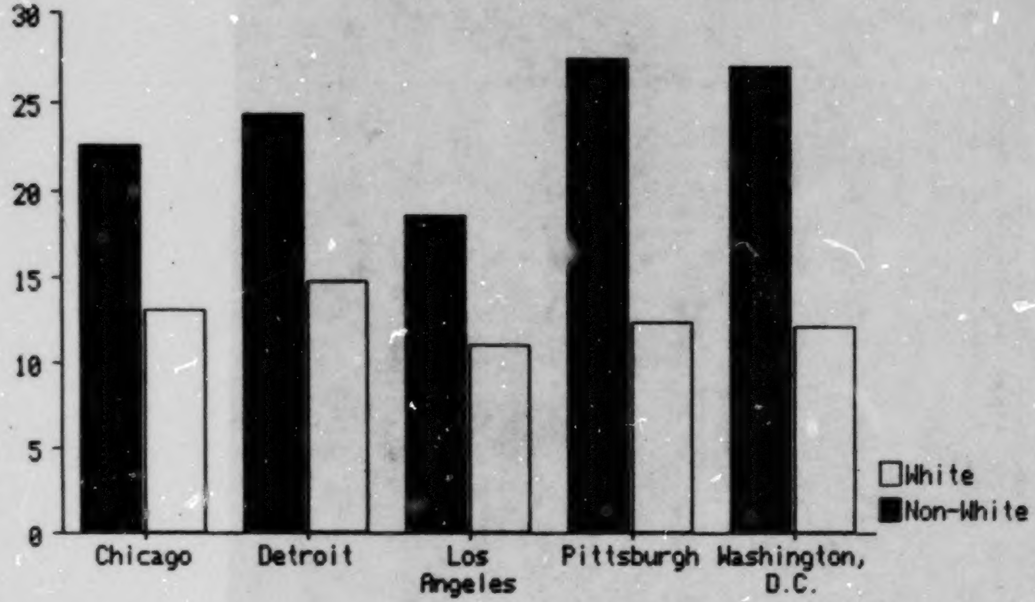
Infant Mortality Rates By Race
For Selected Cities: 1978 - 1980



Mr. DINGELL. Now we have to inquire, why were there fewer resources reaching high risk women starting in 1981? Thousands were being pushed out of the Medicaid Program or frozen by restricted eligibility standards at the same time that the number of women under the poverty line grew. In 1982 the Maternal and Child Health Program was cut 25 percent on top of inflation and families of unemployed workers were reduced to seeking medical care in emergency cases only.

Obviously, care for women bearing children or for babies saw a startling decline in both availability, quality and in the beneficial consequences that followed that kind of care.

The Chair believes that the administration will concede today that we are not getting useful pregnency services to black women as effectively as we did a few years ago. Today the committee will look at the administration's deteriorating leadership in the Department of Health and Human Services. The Chair—and I think this hearing will inquire specifically why does the administration no longer expand and improve efforts at early intervention?

Parenthetically we might inquire what are the consequences of this failure? I believe they are very serious.

The committee wants to know why is the effort to fill the gaps in monitoring of infant mortality and low birth weight so late in coming? And what are the consequences of that? The committee is also curious, why does the administration choose this minute to suggest a reduced Federal role and responsibility? The committee, I think, and the country are going to inquire, can we reduce our Federal role and responsibility without contributing to the death of more babies or to having youngsters, young adults, and adults suffer the consequences of impairment during infancy because of inadequate prenatal and postnatal care.

The Nation's greatest resource is its people. If the resource is permitted decline because of inadequate health care or inadequate education or anything else which is important to perfecting a high quality work force and a high quality race, the Nation is going to suffer severely.

The Chair is delighted to announce that—the Chair will inquire, do any of my colleagues have statements?

Mr. Nielson.

Mr. NIELSON. Thank you, Mr. Chairman.

Mr. DINGELL. The gentleman is recognized.

Mr. NIELSON. I appreciate the opportunity to participate in today's hearing focusing on a problem which is of concern to us all: that is, the incidence of infant mortality and the higher rates of infant mortality affecting blacks. Fortunately, Mr. Chairman, the general trend in U.S. infant mortality rates over time has been downward. Between 1978 and 1982, for example, total U.S. infant mortality rates decreased about 19 percent, according to figures provided by the National Center for Health Statistics, NCHS.

From 1978 through 1980, the last year for which NCHS data were compiled on a rate-specific basis, the infant mortality rate decreased 8.3 percent for whites and 9.5 percent for all other races. Still, the incidence of infant mortality among blacks is double the rate for whites. The best evidence suggests that this difference is almost wholly due to the greater incidence of low birth weight among blacks.

As evidence of the intractability of this problem, the evidence suggests that there has been little change in the incidence of the low birth weight phenomenon over the last decade in spite of such programs as WIC, maternal and child health programs, and other efforts.

For example, it has long been assumed that access to medical care and nutritional supplementation programs would assist in reducing the incidence of low birth weight. Unfortunately, neither of these strategies has been effective.

In preparation for this hearing, members of the staff, both majority and minority, have interviewed a large number of individuals. Statistics from the National Center for Health Statistics and the Center for Disease Control have been compiled and officials of the Department of Health and Human Services, ranging from the Assistant Secretary for Health to physicians and other medical professionals within the Public Health Service, have been interviewed.

These interviews make clear beyond any shadow of a doubt that there is no hidden agenda or any lack of sensitivity within the Department concerning the gap between black and white infant mortality. To suggest, as some today will, that these gaps can be eliminated by increasing Federal spending on certain programs or requiring the States to expand services available under medicaid is to ignore the fact that the reasons for the gap in black and white infant mortality remain unknown. These gaps have existed since these statistics have first been compiled.

This is not to suggest that nothing can be done.

Research is continuing in an effort to find the true cause of this longstanding problem. This problem can and will be solved but that effort will require scientific skill and the good will and faith of all Americans. This problem remains a top priority for us all, and not just a few.

Thank you very much.

Mr. DINGELL. The Chair thanks the gentleman.

The Chair recognizes my good friend and colleague and co-chairman, Mr. Waxman.

Mr. WAXMAN. Thank you very much, Mr. Chairman.

Today's joint hearing with the Oversight Subcommittee and our Health and Environment Subcommittee is to investigate infant mortality—where we are, where we should be and how we can get there. It is also a review of the Reagan administration's legislative program for babies.

Over the past 40 years we have made progress as a nation in reducing the number of babies that die. Early data for 1982 suggest that on a national basis we are continuing to make improvements. But we must not be fooled into thinking that this general decline is good enough. National data do not tell the whole story. They can be and have been used to hide disturbing statistics and realities. Black infants continue to die at a rate twice that of white infants.

Recent studies indicate that in a number of cities and regions, the number of babies that die is increasing.

Other research shows that the number of pregnant women getting early prenatal care has declined over the last 4 years.

These numbers are unacceptable.

But we are not here today to argue about numbers. No matter whose numbers you use, too many babies are dying and too many stay too long in the hospital. The Reagan administration officials say they need to study the problem before they know what will work. More data would help but we also know what does work. We know that prenatal care works. We know that immunizations work. We know that good nutrition works.

As you can see from the chart of existing health programs, the administration has tried to cut or eliminate every single one of the programs we know that works: medicaid, food programs, health clinics, and even immunizations.

And, as you can see from the chart of congressional health initiatives, the administration has opposed every effort except the adolescent pregnancy program proposed by Senator Denton. They proposed a cut in medicaid and all these others and they refused to go along with a new initiative for children: the child health assistance program, known as CHAP.

This report is indefensible. President Reagan cannot claim to be prolife and cut every program to keep babies alive. He and his officials cannot claim to be for the family and oppose every improvement in the health care of mothers and their children. I hope these hearings will begin the momentum to make real change. We can no longer wait.

[The chart referred to follows:]

Activities which reduce risk of low birth-weight and infant mortality	Existing health-related programs which support these activities	Administration proposals [1]	Congressional health initiatives to support these activities	Administration position
Pre-Pregnancy: Primary care Family planning Health education	Medicaid	"Cap" Federal funding, ending entitlement to health care for poor mothers and children (1981), impose co-payments on pregnant women and children (1982, 1983, 1984)—Reduce Federal funding by 3 percent (1983, 1984).	Medicaid: Increase Federal payments to poor, uncovered, pregnant women and infants. ("CHAP") (H.R. 4136).	Oppose.
Pregnancy: Risk screening Prenatal care Nutrition and counseling	Special supplemental food program for women, infants, and children (WIC).	Cut Federal funding by 22 percent (1981)—Cut Federal funding by 22 percent and repeal and transfer to States thru block grant (1982).	Health care for unemployed: Establish block grants to States for services to unemployed workers and families with priority to pregnant women and children. (H.R. 3021).	Oppose.
Birth and beyond: Medical care for mother and child Neonatal intensive care Immunizations	Maternal and child health services block grant	Cut Federal funding by 25 percent (1981)—Cut Federal funding by 22 percent (1982)—Eliminate Federal funding for improved pregnancy outcome projects (1981, 1982, 1983, 1984).	Maternal and child health services block grant: Raise funding ceiling from $373 million to $483 million. (H.R. 3021).	Oppose.
	Community health centers	Cut Federal funding by 25 percent (1981)—Repeal and transfer to States thru block grant (1981, 1982, 1983, 1984).	Community health centers: Raise funding ceiling from $327 million to $354.5 million in fiscal year 1984. (H.R. 2861).	Oppose.
	Family planning	Cut Federal funding by 25 percent (1981)—Repeal and transfer to States thru block grant (1981, 1982, 1983, 1984).	Children's preventive health act: Provide $10 million funding for newborn genetic screening. (H.R. 3850).	Oppose.
	Migrant health centers	Cut Federal funding by 25 percent (1981)—Repeal and transfer to States thru block grant (1981, 1982, 1983, 1984).	Cigarette labeling: Require manufacturers to display warning to pregnant women of the health hazards of smoking. (H.R. 3979).	Oppose.

Childhood immunizations	Cut Federal funding by 33 percent (1981)	Adolescent family life demonstration project: Provide $15 million funding (fiscal year 1984) to "promote self-discipline and other prudent approaches to the problem of adolescent premarital sexual relations".	Support.

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[1] Percentages refer to difference between previous year funding and administration proposal. They understate the amount of the proposed reduction because they do not take into account inflation or outyear reductions.

Mr. DINGELL. The Chair thanks the gentleman.

The gentleman from Texas, Mr. Leland, is recognized for a statement.

Mr. LELAND. Thank you, Mr. Chairman, and thank you for your leadership and for working with the chairman of the Health and Environment Subcommittee to bring this very important issue to bear this morning.

The subject of today's hearing, infant mortality, is a very personal and emotional one for me. In 1979 as a freshman Member of Congress, the distinguished chairman of the Health and the Environment Subcommittee, Mr. Waxman, and I traveled to my home district. We found some alarming statistics, some of which indicated that the infant mortality rate was in some census tracts in my district higher than in Sri Lanka, Pakistan and Hong Kong; this, in a place as affluent as Houston, TX.

Those census tracts happened to be black census tracts. They were so desperately separate from the infant mortality rate in the white community that it was rather alarming to find that the rate was at least twice, and sometimes three and four times, as high as those in the white census tracks.

It is not that I have come here today to disparage the differences between whites and blacks, particularly as they relate to infant mortality—because, as the chairman has said, it is tragic to have infant mortality anywhere—but there has to be some kind of effort made to discover what the real problems are; why black people suffer from a greater infant mortality rate than other parts of the population.

In 1979 the tragedy of the high infant mortality rate among black Americans was discussed and analyzed. There was agreement on the tremendous gravity the problem represented to the future of this country. However, there was also hope on the horizon. At that time there was a real commitment on behalf of the Nation to address the subject. Federal funding for Medicaid, the WIC program, maternal and child health services, block grants, family planning, and a variety of other programs were making swift, real, and positive impacts on the high infant mortality rate on the Nation's impoverished.

Mr. Chairman, my fellow colleagues and friends, it grieves me deeply, it is a nightmare if you will, that we sit here today nearly 5 years to the day in another congressional hearing addressing the same issue of the black-white infant mortality gap. Tragically the story has worsened. In 1978, statistics indicated that black infant mortality was as high as 86 percent greater than that of white babies. In 1981 the rate had increased to 95 percent. I know that these statistics can be refuted and challenged but even the fact that there are statistics that prevail and some people believe these statistics are real, indicates that we have to again do something.

We will hear today that the problem is being studied. I submit to all of you that these studies are grossly insufficient, bordering on negligent.

In 1981 penalties were imposed on the Federal funding of the medicaid program, programs for poor mothers and children were ended. Our colleague, Mr. Nielson, indicated in his statement this morning, that in spite of the WIC program it seems that there still remains a problem.

The fact of the matter is that the WIC program was cut by 22 percent. The maternal and child health services block grant was slashed by 25 percent at a time when these programs were most needed. Furthermore, Mr. Chairman, all of these programs have continued to be decimated.

The course of action is clear. Money invested in prenatal care and education saves lives. Because I am anxious to hear from our expert witnesses I will reserve any additional comments for the questioning period.

However, for myself, Mr. Chairman, on behalf of the Congressional Black Caucus and my Chair will speak, of course, more comprehensively for the Congressional Black Caucus, and the thousands of babies who will never be able to speak for themselves, may I express a heartfelt gratitude to you and Mr. Waxman for your enlightened and humanitarian leadership on this very important issue.

Thank you, Mr. Chairman.

Mr. Dingell. The Chair thanks my good friend. Any others?

The gentleman from Minnesota.

Mr. Sikorski. Mr. Chairman, the topic of this hearing is an incredible one, considering that the United States is looked at as the leading economic governmental power in the world. As a member of both the subcommittees of this committee meeting here today and the Select Committee on Children, Youth and Families, and as father have a very special interest in this topic.

Children's issues are some of the most neglected policy concerns before Congress. Everyone gives the speeches, places them right up there with mom and apple pie but as Captain Kangaroo points out, half of all Moms are divorced, we don't need that much apple pie, and all too often children are left without a voice in our public policy and our public proceedings.

The Congressional Black Caucus, Public Advocates, Children's Defense Fund and the Food Research and Action Center are to be commended for bringing this issue of infant mortality and the impact of budget cuts to our attention.

I would like to—having looked over Dr. Brandt's testimony—congratulate him on his movement since we last heard him in the Select Committee last June. His statement today represents an important quantum step forward on the problem of what works and what we need to do from here on out.

While the effect of budget cuts on infant mortality is difficult to document, few would disagree with the statement that infant mortality rates in the United States are unacceptably high and must be reduced immediately. And, some Americans—particularly black Americans—disproportionately bear the price for this health tragedy.

While the infant mortality rate for both blacks and whites has been declining over the past 40 years, the black infant mortality rate and incidence of low birth weight babies is still twice as high as for whites. What is even more disturbing is that the racial gap in infant mortality rates is widening.

Contrary to what some would say, we do know how to address this problem. Medical literature and scientific studies indicate that the incidence of low birth weight can be significantly reduced through early comprehensive prenatal care. And, the more we reduce the low birth weight incidence, the more the infant mortality rate will be lowered. The Congressional Research Service report we are releasing today indicates that an expectant mother that is given no prenatal care is three times more likely to deliver a low birth weight child. And, approximately two-thirds of all infant deaths occur in infants that are low birth weight.

Each year, 327,000 American babies are born prematurely, shrinking their survival chances and increasing their rate of birth defects. Yet this administration has told Congress that we cannot afford the $120 million needed in 1984 to provide these mothers prenatal care. But, according to the administration, we can afford to spend $120 million for each of the 226 MX missiles—$26 billion annually.

Moreover, there are serious questions about the manner in which the administration has been administering a number of health service programs that have a direct impact on infant mortality and low birth weight, particularly among the poor, and I would hope that this hearing indicates to the administration the seriousness with which Congress, and most Americans, view this subject.

Yesterday the Select Committee on Children, Youth and Families released a new study on demographic and social trends in the United States. This report documents the dramatic increase in the population of young children. I would hope that given this important trend, Congress will examine the implications of our infant mortality rate. It is clear that children's health issues must take a more primary role on the national agenda.

I commend Chairman Dingell, Chairman Waxman, and Congressman Leland for being in the forefront on this issue. I look forward to working with them to develop legislative strategies that address this situation.

Thank you, Mr. Chairman.

Mr. Dingell. The Chair thanks the gentleman.

The Chair observes with considerable pleasure the presence of two of our respected and admired colleagues, the Honorable Julian Dixon, chairman of the Congressional Black Caucus; and the Honorable Lindy Boggs, Secretary of the Congressional Caucus on Women's Issues. We are delighted to have you both here and we thank you for your assistance to the committee.

The Chair has several observations that we have to make as part of the initiation of the testimony. You will observe, I am sure, that the history of the Committee on Oversight and Investigations is that it has always required its witnesses to proceed under oath. We hope you will take no offense at that.

So the Chair must inquire, as we do in all our investigations, first, do you have any objection to appearing under oath?

Mr Dixon. No objection, Mr. Chairman.

Mrs. Boggs. No.

Mr. Dingell. Second, do either of you desire to have presence of counsel to advise you with regard to your rights or limitation on the powers of the committee?

Mr. DIXON. I do not, Mr. Chairman.

Mr. DINGELL. The Chair will observe then that copies of the rules of the committee, and copies of the rules of the subcommittee and copies of the rules of the House in the yellow and red booklets are there for you—for your assistance as you present your testimony to the committee.

If there is no objection to proceeding under oath, if you would each rise and raise your right hand.

[Witnesses sworn.]

Mr. DINGELL. You may each consider yourselves to be under oath, and we will recognize first Mr. Dixon and then Mrs. Boggs, and if you would prior to the giving of your full testimony, if you would then each identify yourself than for the purposes of the record.

TESTIMONY OF HON. JULIAN C. DIXON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA, AND CHAIRMAN, CONGRESSIONAL BLACK CAUCUS

Mr. DIXON. I am Congressman Julian Dixon from Los Angeles, CA, chairman of the Congressional Black Caucus.

Mr. Chairman, the 21 members of the Congressional Black Caucus are grateful to you and to Mr. Waxman and the entire subcommittees for convening these much needed hearings about the unacceptability and high level of infant mortality in our society.

Just before speaking, Ms. Boggs leaned over to me and said, "Will the members of the committee leave us anything to say?" I think it is true that the members of the committee have articulated the problem and pointed out the seriousness of it to our country.

It is a fact though that over the past 3 years there has been a disturbing nationwide decrease in the percentage of women receiving prenatal care during the first 3 months of pregnancy and a rise in the percentage of women receiving late or no prenatal care.

Between 1981 and 1982, death rates for all infants increased in 11 States; for white infants in 9 States, and for nonwhite infants in 13 States.

Although the problem, in reality, is a result of poverty—not race—the statistics show that black infants in America are twice as likely to die before their first birthday than are white infants.

I am here today, representing the Congressional Black Caucus, in an attempt to find a solution to this problem that so deeply affects black Americans.

Consider these facts, which have been well articulated by members of the committee: Being underweight is probably the most critical health indicator at birth; those born low birth weight are 20 times more likely to die within their first year, and this condition is also associated with increased risk of mental retardation, birth defects, blindness and cerebral palsy; black babies are twice as likely to be born low birth weight, meaning under 5½ pounds.

To give these statistics a more human perspective, each year 70,000 black babies begin life under these adverse circumstances. Of these it is estimated that in 1984, 15 percent of these black babies will die. Others will face lifelong consequences.

Research and experience has proven that America has the tools to stop the needless deaths of poor infants. This is why we believe the present level of black infant mortality is unacceptable.

This high rate of infant death among blacks has become an expected and seemingly an accepted pattern due to its consistency over the years. Ironically, while many of our major health problems have cures that must yet be discovered, there is no mystery about how to reduce the number of black infant deaths.

A direct correlation exists between prenatal care and healthy births. It is that plain and simple. Babies born to women who have experienced little or no prenatal care are three times as likely to be born low birth weight and die in their first year. Yet the American medical system has moved to treat the crisis rather than prevent it.

America's technology is first in the world as it relates to intervening for premature babies of less than 2 pounds. Yes, our technology in this country is great, but so are the costs from taking this approach, in both human and financial terms. Despite all this scientific know-how, 15 countries rank ahead of ours with lower rates of infant mortality.

Somehow we have come to believe that it is better to spend vast amounts for catastrophic intervention rather than the modest sums necessary to ensure a high proportion of healthy births.

In 1980, the Surgeon General established several goals for reducing infant deaths in America. He said by 1990, low-birth weight babies should constitute no more than 5 percent of all live births with no racial subgroup exceeding 9 percent of all live births.

At the current rate of progress, 80 percent of the States that report will not meet their low-birth weight goals for all babies, and 78 percent will not meet their goals for nonwhite babies. Those that do will do so in the most costliest rather than the most cost-effective way: by saving premature babies through expensive neonatal intensive care rather than by producing healthier babies through adequate prenatal care.

Let me now focus on mortality rates. The Surgeon General said that by 1990, the U.S. infant mortality rate should not exceed nine deaths per 1,000 live births, with no racial or ethnic subgroup exceeding 12 deaths per 1,000 live births.

At the current rate of progress, 32 of the States will not meet their goals for reduced mortality rates among all children and 55 of the States will not meet their goals for nonwhite babies.

The Surgeon General said that by 1990, 90 percent of pregnant women should begin medical care in the first trimester, because of the high correlation between appropriate maternity care and birth outcome.

At the current rate of progress, 94 percent of the States will not meet their goals for all women, and 95 percent will not meet their goal for nonwhite women.

And yet, the solution to all three of these problems is very simple. It is simple because there already exists a network of Federal programs which can extend adequate prenatal care including WIC, maternal child health block grants, and medicaid.

With adequate resources, these programs would frame a solid Federal commitment to prenatal care. Instead, this administration has made cuts and changes in title V maternal and child health care programs, community and migrant health programs, and medicaid—all of which have contributed signficantly to the increased number of poor women and children who are now being turned away from much needed health care.

This is a clear example of the Domino Theory. The lack of funding for prenatal care reduces the services available to poor pregnant women. The direct result of this drop in prenatal care is an increase in the number of low-birth weight babies. An increase in the number of premature and underweight babies increases the number of infant deaths.

Specifically, the Reagan administration has: Continually requested a reduction of funds in the WIC Program even though the program currently serves only 30 percent of those eligible for benefits.

They have cut the maternal child health program by 18 percent in 1982 and made it into a block grant program. As a consequence 47 States report cutbacks in maternal child health services.

They have cut AFDC by $2 billion which removed an estimated 700,000 children from medicaid coverage and prevents those children born low-birth weight from receiving adequate care after hospitalization.

Finally, there has been a medicare cut by $4 billion over 3 years which eliminated more children from access to health care. The administration is currently pushing for further reductions in medicaid.

It can be no surprise that improvements in black infant mortality have slowed under such policies. Many organizations have called this problem to the attention of the administration.

In June 1983, Public Advocates served a comprehensive 150-page petition to Secretary Heckler detailing ways to reduce the incidence of low-birth weight and resultant infant mortality through currently existing regulations.

In January 1984, the Children's Defense Fund documented the alarming decline in the amount of medical care available to low-income women in the early months of pregnancy. This reduction of funds is due to the budget cuts of this administration.

Again in January 1984, the Food Research and Action Center issued its report "The Widening Gap," which reviewed data from 36 States and 60 cities. The study showed, for example, as Congressman Dingell has pointed out, that the infant mortality rate in Cuba is 19.1 deaths per 1,000 births; in Jamaica, the rate is 16.2 deaths per 1,000 live births; the rate in our Nation's capital is 24.9 deaths per 1,000 births. Twenty babies out of 1,000 die here in the Nation's capital.

Now, why hasn't the administration taken substantive action?

I do note that on January 17, 1984, Secretary Heckler did announce the establishment of a new task force to review the gap in death and disease rates between black and white Americans.

Although Secretary Heckler denied that the Reagan administration budget cuts had widened the gap in health care between races, she did say that "a disparity between the majority population and the minorities still plagues us."

In all good conscience, Mr. Chairman and members, we find this to be a totally unacceptable response to the problem.

Over the past 30 years, there have been innumerable studies that have clearly demonstrated a gap in infant mortality and provide us with the simplest of solutions. There is no call and should not be a call for further study—what is called for now is immediate action. Both regulative and legislative reforms must be taken.

There are existing regulations that allow the State the option to provide prenatal care for first-time mothers who do not usually qualify for AFDC funding. The administration has failed to encourage States to take advantage of such options and been unwilling to establish education programs of any kind.

There are legislative proposals, such as the CHAP (Child Health Assistance Program) sponsored by Mr. Waxman, that would provide 100 percent matching funds for first-time pregnant women who meet AFDC income requirements in States where such options are not available. This legislation would also provide funding for pregnant women in two-parent families where the principal breadwinner is unemployed.

As well, there must be a concentrated effort to prevent the administration from additional reduction in medicaid funding. The Congressional Black Caucus and Women's Caucus through Mrs. Boggs turn to your subcommittee for an investigation and review of this administration's failure to address this serious national health problem and to urge immediate legislative action on this matter.

There is no argument, as you can see from the statements this morning, that the situation has not improved. Even the Federal Government's own data maintains that black babies are twice as likely not to survive.

So today we come instead to ask that you, our congressional leaders in health policy, direct us in a course of action. Your leadership is needed to advance critical legislation and to demand that this administration marshal its resources—not maintain its innocence.

Targeted policies can close this gap. We know that. It is the will which Congress, this administration, and our Nation must assert so that all poor infants—particularly black newborns—have a fair chance in life and an equal opportunity in our society.

Mr. Chairman, I also have testimony by Congressman Dellums who could not be here and I ask the Chairman to insert his remarks into the record.

Mr. DINGELL. Without objection, the statement of Mr. Dellums will be inserted in the record at the appropriate time.

[The prepared statement of Hon. Ronald V. Dellums follows:]

INFANT MORTALITY DISCRIMINATES

STATEMENT BY

CONGRESSMAN RONALD V. DELLUMS

MARCH 16, 1984

GOOD MORNING CONGRESSMAN DINGELL AND CONGRESSMAN WAXMAN.

I WOULD FIRST LIKE TO APPLAUD YOUR DECISION TO HOLD THESE HEARINGS ON INFANT MORTALITY - A PROBLEM THAT REMAINS OF GREAT CONSEQUENCE IN SPITE OF HIGH-TECH MEDICINE AND THE SIGNIFICANT PUBLICITY THAT INFANT MORTALITY HAS RECEIVED.

I HELD A SERIES OF HEARINGS ON INFANT MORTALITY IN THE DISTRICT OF COLUMBIA AND IN MY HOME DISTRICT-- OAKLAND, CALIFORNIA. THOSE HEARINGS HAVE GIVEN ME GREATER INSIGHT INTO THE PROBLEMS OF INFANT MORTALITY, ITS ETIOLOGY AND HOW IT MUST BE ADDRESSED.

ACCORDING TO THE DEPARTMENT OF HEALTH AND HUMAN SERVICES' DATA, THE PRESENT RATE OF INFANT MORTALITY IN THE UNITED STATES IS AT THE LOWEST EVER RECORDED. IN FACT THEIR DATA SHOWS A CONSISTENT DECLINE OVER THE LAST DECADE.

MY HOME DISTRICT, WHICH A FEW YEARS AGO MADE NATIONAL HEADLINES WITH AN APPALLINGLY HIGH INFANT MORTALITY RATE, WOULD APPEAR TO HAVE SEEN SOME IMPROVEMENT. TESTIMONY AT MY 1982 HEARINGS REVEALED THAT DURING THE PERIOD FROM 1974 - 1979, EAST OAKLAND HAD EXPERIENCED A 40 PERCENT REDUCTION IN ITS INFANT MORTALITY RATE. THIS IS NOTEWORTHY BECAUSE THIS SECTION OF OAKLAND HAD BEEN DESIGNATED "HIGH-RISK" BECAUSE OF ITS TRADITIONALLY HIGH RATE OF INFANT MORTALITY.

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BUT, WE ARE NOW SEEING THIS TREND REVERSED, WITH INCREASING INFANT MORTALITY RATES FOR EAST OAKLAND IN 1981 AND 1982. I WOULD SUGGEST TO YOU THAT THE INCREASING INFANT MORTALITY RATES IN EAST OAKLAND CAN BE DIRECTLY ATTRIBUTED TO THE MASSIVE CUTS IN NEEDED PROGRAMS BY THE REAGAN ADMINISTRATION, WHO WOULD HAVE YOU BELIEVE THAT INFANT MORTALITY RATES ARE IMPROVING ACROSS THE BOARD.

PUBLIC ADVOCATES, WHOSE STUDY WE ARE EXAMINING TODAY, PAINTS A VERY DIFFERENT PICTURE FROM THAT OF THE ADMINISTRATION'S. WHILE INFANT MORTALITY MAY BE DECLINING FOR SOME, IT IS NOT FOR ALL; SPECIFICALLY, NOT FOR OUR NATION'S POOR AND ETHNIC MINORITIES.

THE LEADING CAUSE OF INFANT MORTALITY IS LOW BIRTH WEIGHT, WHEREIN THE LEADING CAUSE OF LOW BIRTH WEIGHT IS EITHER PREMATURE BIRTH OR IMMATURE BIRTH. THESE CATEGORIES DEFINE THE REAL INFANT MORTALITY PROBLEM,AS LOW BIRTH WEIGHT INFANTS REPRESENT THE HIGHEST "AT-RISK" CATEGORY AMONG INFANT DEATHS.

CERTAIN DATA WOULD SUGGEST THAT WE ARE NOT SUCCEEDING IN REDUCING INFANT MORTALITY IN ALL CATEGORIES NOR IN CERTAIN GEOGRAPHICAL AREAS. FOR EXAMPLE, IN CALIFORNIA BETWEEN 1978 AND 1981, THERE WAS A SLIGHT DECLINE IN THE OVERALL LOW BIRTH WEIGHT RATE FROM 6.2 TO 5.8; * BUT IN ALAMEDA COUNTY, A HIGH-RISK COUNTY, THERE WAS VIRTUALLY NO DECLINE-- I BELIEVE BECAUSE PROGRAMS ARE BEING CUT BACK. ANY EFFORTS TO REDUCE INFANT MORTALITY ON A REAL AND CONSISTENT BASIS MUST ALSO INVOLVE LOWERING THE LOW BIRTH WEIGHT RATE.

WE MAY CONCEED HERE THAT INFANT MORTALITY HAS BEEN REDUCED FOR SOME SEGMENTS OF OUR POPULATION AND IN SOME GEOGRAPHICAL AREAS, HOWEVER THESE REDUCTIONS HAVE NOT BEEN DISTRIBUTED EQUALLY IN ALL SOCIO-ECONOMIC GROUPS. WE NOW KNOW THAT INFANT MORTALITY DISCRIMINATES.

* All statistics are per 1,000 live births

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DURING THE COURSE OF MY HEARINGS ON INFANT MORTALITY, I DISCOVERED ITS MANY COMPLEXITIES. AS WE BEGIN TO UNRAVEL THESE COMPLEXITIES, WE LEARNED THAT THERE IS ONE COMMON FACTOR AMONG WOMEN WHO DELIVER "AT-RISK" INFANTS - THEY ARE GENERALLY POOR. WHAT ELSE HAVE WE LEARNED ABOUT THEM: THEY ARE OFTEN BLACK, THEY ARE HISPANIC, THEY ARE NATIVE AMERICANS, OR SOME OTHER ETHNIC MINORITY; THEY ARE TEENAGERS; THEY ARE UNDER-EDUCATED; THEY LACK KNOWLEDGE REGARDING NUTRITION; THEY ARE OVER 35 AND ARE HEAVY SMOKERS; AND MOST IMPORTANTLY, THEY ARE NOT RECEIVING ADEQUATE TIMELY PRE-NATAL CARE.

THESE CATEGORIES OF WOMEN ARE EXPERIENCING DISPROPORTIONATELY HIGHER RATES OF INFANT MORTALITY AS COMPARED WITH OTHERS; ESPECIALLY MIDDLE AND UPPER INCOME WHITE WOMEN. INFANT MORTALITY, QUITE SIMPLY IS A SOCIO-ECONOMIC PROBLEM - IT IS A PROBLEM ROOTED IN POVERTY, DISCRIMINATION AND A LACK OF ADEQUATE SERVICES. THEREFORE INFANT MORTALITY CAN ONLY BE REDUCED THROUGH PROGRAMS WHICH ADDRESS THESE PROBLEMS AND WHICH ARE FULLY ACCESSIBLE TO THE POPULATION AT RISK.

THERE IS A SOCIO-ECONOMIC GAP IN INFANT MORTALITY RATES, MOST DISCERNIBLE WHEN YOU COMPARE BLACK AND WHITE RATES, AS BLACKS ARE MOST OFTEN AT THE BOTTOM END OF THE ECONOMIC SCALE. PUBLIC ADVOCATES REVEALED IN THEIR SURVEY OF 45 CITIES, THAT THE OVERALL INFANT MORTALITY RATE FOR BLACKS WAS 21.13, 82 PERCENT HIGHER THAN THE RATE FOR WHITES AT 11.58. THE LATEST STATISTICS WE HAVE ACCORDING TO RACE FOR THE STATE OF CALIFORNIA (1979) SHOW THE BLACK RATE OF 18 TO BE ALMOST 50 PERCENT HIGHER THAN THE WHITE RATE AT 9.3 PERCENT.

OF THE 45 CITIES SURVEYED IN THE PUBLIC ADVOCATES STUDY, 32 HAD A BLACK INFANT MORTALITY RATE THAT WAS MORE THAN 50 PERCENT HIGHER THAN THE RATE FOR WHITES. THEIR DATA SUPPORTS MY ASCERTION THAT INFANT MORTALITY DISCRIMINATES. THERE IS A DEFINITE GAP BETWEEN BLACK AND WHITE INFANT MORTALITY RATES AND IT APPEARS TO BE GROWING:

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- * - IN 1979 THE GAP WAS 71 PERCENT
- IN 1980 THE GAP WAS 73 PERCENT
- IN 1981 THE GAP WAS A HIGH 82 PERCENT

WE MUST ALSO EXAMINE THE DISPARITIES IN THE LOW BIRTH WEIGHTS, WHICH MOST DIRECTLY CONTRIBUTES TO INFANT MORTALITY; THE DATA IS EVEN MORE STARTLING.

IN 1979, THE GAP BETWEEN BLACK AND WHITE LOW BIRTH WEIGHT WAS 86 PERCENT.*
IN 1980, THE GAP WAS 105 PERCENT, IN 1981, THE GAP WAS AN UNPERCENDENTED 132 PERCENT.

I ASK YOU, DO THESE OBSCENELY HIGH FIGURES BEAR ANY RESEMBLANCE TO SUCCESS? WE HAVE FAILED AS A NATION TO IMPROVE THE SURVIVAL RATE OF OUR MOST PRECIOUS RESOURCE -- OUR INFANTS. FURTHER, ACCORDING TO THE CHILDREN'S DEFENSE FUND, BETWEEN 1981 AND 1982, THE DEATH RATE FOR ALL INFANTS INCREASED IN 11 STATES. THE FOOD RESEARCH AND ACTION CENTER, DISCRIBED IN THEIR STUDY AN "INFANT MORTALITY BELT" IN THE UNITED STATES, RUNNING SOUTH FROM MARYLAND TO FLORDIA, WEST TO TEXAS AND THE INDUSTRIAL MIDWESTERN STATES.

WE ARE A NATION THAT RANKS FIRST IN MILITARY TECHNOLOGY AND SPENDING, YET WE HAVE AN INFANT MORTALITY RATE THAT IS WORSE THAN CUBA AND JAMAICA. WE RANK SIXTEEN AMONG INDUSTRIALIZED NATIONS, BEHIND JAPAN, FRANCE, GERMANY AND BRITAIN. WE HAVE THE SECOND WORST RATE FOR LOW BIRTH WEIGHT INFANTS.

A SUPERFICIAL LOOK AT THE DATA WOULD INDICATE THAT THE U.S. HAS BEEN SUCCESSFUL; HOWEVER OUR SOCIAL AND ECONOMIC PROGRESS HAS NOT BEEN DISTRIBUTED ON A EQUITABLE BASIS WHEN YOU LOOK AT BLACK INFANT MORTALITY RATES. THE DATA STRONGLY SUGGESTS THAT WE ARE NOT SUCCEEDING IN REDUCING INFANT MORTALITY IN ALL CATEGORIES.
THE QUESTION IS WHY? ESPECIALLY WHEN WE KNOW WHAT WORKS! WE KNOW THAT COMPREHENSIVE, COMMUNITY-BASED CARE HAS BEEN SHOWN TO BE EFFECTIVE IN PREVENTING CONDITIONS WHICH LEAD TO INFANT MORTALITY.

*Public Advocates Data

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SPECIFICALLY, I AM REFERRING TO HEALTH EDUCATION, NUTRITION COUNSELING AND FOOD ASSISTANCE, EARLY PRE-NATAL CARE, CHILD BIRTH AND PARENTING TRAINING, AND FAMILY PLANNING. THE EFFECTIVENESS OF THESE SERVICES IS WELL ESTABLISHED.

IN CALIFORNIA, WE ESTABLISHED A STATE-WIDE PROGRAM CALLED OB ACCESS. IT WAS ORIGINALLY A PILOT PROJECT IN OAKLAND, PROVIDING COMPREHENSIVE PRE-NATAL CARE. THIS PROGRAM HAS BEEN OVERWHELMINGLY SUCCESSFUL, AND A MAJOR FACTOR IN REDUCING INFANT MORTALITY IN OAKLAND. BUT OBVIOUSLY WE NEED MORE PROGRAMS LIKE OB ACCESS, OTHERWISE OUR SUCCESSES ARE SHORT-LIVED, AS WE ARE NOW DISCOVERING IN OAKLAND.

WE NEED TO RE-ORDER OUR PRIORITIES FOR HEALTH CARE DELIVERY. WE NEED TO MOVE AWAY FROM OUR RELIANCE ON COSTLY NEONATAL INTENSIVE CARE, DESIGNED TO IMPROVE THE SURVIVAL RATE OF HIGH-RISK NEWBORNS. NEEDED PROGRAMS LIKE OB ACCESS ARE AN ENDANGERED SPECIES IN A TECHONOLOGY-ORIENTED HEALTH CARE SYSTEM. WE NEED PROGRAMS THAT LOWER THE RISKS FOR THESE INFANTS BEFORE THEY ARE BORN.

OUR CURRENT SYSTEM OF HEALTH CARE DELIVERY EXPENDS BILLIONS OF DOLLARS ON HEALTH CARE BASED ON ILLNESS, RATHER THAN ON GOOD HEALTH. WE NEED TO ESTABLISH A SYSTEM BASED ON THE PREVENTABLE MODE OF HEALTH DELIVERY, AS WOULD MY NATIONAL HEALTH SERVICES BILL, IF PASSED. PREVENTION IS THE MOST COST-EFFECTIVE AND HUMANE APPROACH TO HEALTH CARE. WE NEED TO IMPROVE MEDICAID COVERAGE TO INCLUDE MORE "MEDICALLY NEEDY".

THE REAGAN ADMINISTRATION HAS CUT AID FOR MANY SOCIAL PROGRAMS - PROGRAMS WHICH MIGHT HAVE RESULTED IN A LOWER INFANT MORTALITY RATE FOR ALL SEGMENTS OF OUR POPULATION. ANY SAVINGS REALIZED AS A RESULT OF THESE CUTS WILL BE OFFSET BY AN INCREASE IN OUR SOCIETY'S ECONOMIC, SOCIAL AND HEALTH PROBLEMS. THE LEGACY OF THE REAGAN POLICIES WILL BE REFLECTED IN THE INFANT MORTALITY RATES AND THE MATERNAL MORBIDITY RATES FOR DECADES TO COME.

I WILL CONTINUE TO PUSH FOR INCREASED FEDERAL SPENDING TO DEVELOP PROGRAMS THAT NOT ONLY REDUCE INFANT MORTALITY, BUT ALSO PROGRAMS THAT ADDRESS THE SOCIO-ECONOMIC PROBLEMS IN OUR SOCIETY WHICH LEAD TO INFANT MORTALITY.

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Mr. DINGELL. We will now recognize our good friend and colleague, Mrs. Boggs.

TESTIMONY OF HON. LINDY BOGGS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF LOUISIANA, AND SECRETARY, CONGRESSIONAL CAUCUS FOR WOMEN'S ISSUES

Mrs. BOGGS. Thank you, Mr. Chairman.

I am Lindy Boggs, Congresswoman from the second Congressional District of Louisiana. I am the Chair of the Crisis Intervention Task Force of the Select Committee on Children, Youth, and Families, and Secretary of the Executive Committee of the Congressional Caucus for Women's Issues.

I am very pleased to be here this morning. I commend your leadership, you and the members of the committee, for convening these hearings on infant mortality in the United States, and I thank you very much for allowing me to testify.

I would like to speak to you to share the concerns of the two groups that I have mentioned, the Select Committee on Children, Youth, and Families and the Congressional Caucus for Women's Issues, and also to speak to you a little bit about my own congressional district, particularly that part that is in the city of New Orleans, which has worked quite hard to reduce the rates of black infant mortality and to improve the health of newborn infants.

As a member of the Select Committee on Children, Youth and Families, I have heard over and over again the evidence given here reinforcing the fact that the gap in mortality rates between black and white infants is widening.

In its year-end report the select committee noted that 10,000 black infants will die this year within their first year of life. Our hearings also revealed that we can expect higher levels of infant mortality and morbidity unless the Federal commitment to preventing infant deaths is strengthened.

Fortunately, though we can save tens of millions of dollars in future medical costs by eliminating many of the life threatening risks faced by infants. Comprehensive prenatal care, including nutrition supplements, clearly reduces the number of infants born at risk from low-birth weight.

It is frightening to realize that black infants in our Nation die at twice the rate of white infants. Statistics compiled by the city of New Orleans unfortunately confirm this fact.

In 1982, the infant mortality rate for all races was high at 16.5 per 1,000 live births. For nonwhites (96 percent of whom are black), the infant mortality rate was 23.3 per 1,000 births; while white infants had a lower death rate of 12.6 percent. This represents the deaths of 172 infants—nearly 150 of whom were black babies.

From New York to Utah to California, we heard about infant mortality rates that were double that of the national rate. One census area of Detroit reported an infant death rate at the level for Honduras, one of the poorest countries in Central America.

The select committee has also heard deeply disturbing evidence that the gap between the death rates of black and white infants is widening. In 1950, the black infant death rate was 61 percent higher than the white rate; but by 1979 the black rate was 91 percent higher than the white rate.

I am pleased to report that the overall infant mortality rate in New Orleans has been improving, particularly as Mr. Nielson has said, between 1978 and 1982. But even with this improvement, the mortality rate for white infants dropped by 53 percent—a grand and wonderful total—while dropping only 23 percent for black infants.

Ochsner Clinic in New Orleans has a fine neonatal clinic, and Charity Hospital has a fine Pre- and Post-natal Program. Every mother grieves when a child at any stage of life dies. We all share that loss. But it is particularly distressing to note that poor women whose lives are less comfortable and less secure financially are plagued by a higher risk of infant deaths than others.

The whole issue of women in poverty is of great concern to the members of the Congressional Caucus for Women's Issues. An analysis of the administration's 1985 budget completed by Women's Research and Education Institute reflects this concern.

Our study shows that 1982 poverty rates among black and Hispanic households headed by women were well over 50 percent—almost twice that of families headed by white females. Children living in these households are the worst off.

Generally, poor women who live in communities that lack adequate resources are not getting the prenatal care they need to ensure healthy babies. The percentage of women getting early care is going down and the percentage of women getting no prenatal care is rising. The Los Angeles County Health Department, we have learned, is no longer providing free prenatal care to those who need it for the first time in 50 years.

I am especially pleased at the initiatives taken by Mr. Dingell and Mr. Waxman to provide incentives to States to extend medicaid coverage to certain categories of poor women and infants because of this.

Women are concerned not only about better prenatal care but also about education and nutrition that will prevent low birth weights. Low birth weight accounts for nearly two-thirds of infant deaths in the United States. The Select Committee on Children, Youth and Families has heard extensive testimony on the relationship of low birth weight to the development of an infant's brain and to specific handicapping conditions such as cerebral palsy, blindness, deafness, et cetera.

My message this morning is simple: We have the capacity to reduce the rate of infant mortality in the United States, particularly among black children. We know that comprehensive prenatal care can cut low birth weights by as much as two-thirds. We know that better nutrition can strengthen pregnant and nursing mothers and help them to deliver babies who are stronger at birth and, therefore, more resilient against disease or respiratory difficulties. And we know that the cost to our society in not providing quality prenatal care is astronomical.

Prenatal care costs about $250 to $300 per pregnancy. But the Government spends upwards of $350 million a year on caring for sick and dying infants. We don't lack the knowledge. Let's pray to God we don't lack the will to address the problem.

Our future depends on healthy children and healthy families, and I hope that the members of the Energy and Commerce Committee will be heartened by the demonstrable progress that New Orleans and other cities have made and promote legislative efforts to reduce infant mortality rates nationwide.

Thank you very much, Mr. Chairman and members of the committee.

Mr. DINGELL. Mrs. Boggs, the committee thanks you for a most helpful statement. We thank you and Mr. Dixon for your great assistance to the committee and for most helpful statements.

I recognize my colleagues for questions.

The Chair recognizes the gentleman from Texas, Mr. Leland.

Mr. LELAND. Thank you, Mr. Chairman.

Chairwoman Boggs, as chairwoman of the Select Committee Task Force have you found any correlation between, or have you heard testimony about the correlation between, teenage pregnancy and infant mortality?

Mrs. BOGGS. Yes, we have heard very serious testimony, as the gentleman, who is a very valuable member of that committee, knows, and the teenage pregnancy problem is one that we must all address.

We must especially address the first trimester coverage of medical care for young people. We must also instruct them in health care for themselves and all along the way of their pregnancy, and indeed be able to give them the kind of care where they will have the proper nutition and proper health services from private clinics, from the health clinics that are in existence and from the State and Federal help they can receive.

I would like to point out that public television is going to have a series on "Your Children/Our Children" which will start airing on April 1. John Merrow is the commentator who spent a great deal of time in my district and in an adjoining district in Louisiana. He went to the Ochsner Clinic where we have this remarkable neonatal clinic.

When I was there a couple weeks ago, I stood next to a black father looking into the window at his twin black sons who said, You know, we lost our first baby because it was at such risk and now I am so pleased to be at this wonderful hospital where my boys are going to have a good chance, you feel that all of the tremendously expensive equipment and the dedication of the doctors and nurses is worth it.

But then you go out to the clinics in the countryside or in Gert Town, which is a neighborhood in my district in the city of New Orleans, and you find the dedicated workers with the teenaged children, particularly girls, who are working with them, making them conscious of their health care, bringing them to places where they can get the WIC Program under their own jurisdiction to be able to know how to manage that type of thing.

Workers also introduce them to some of the great private nonprofit organizations that are willing and anxious to help them to have the proper food, to have the proper medical care and to have the proper kind of immunizations and so on. Those two types of care are shown very specifically in this series that public television is going to put on.

I think that it points out so specifically that we could spend millions, billions of dollars in trying to correct and to save infants, but can spend so few dollars in trying to prevent health.

I hope that we would give help and aid to all of the organizations, public and private, that are working especially with the teenage girls.

In the film you will see this great black woman who goes around and she looks at one teenager and say, Thought I told you you can't smoke cigarettes while you are pregnant. The girl said, I only smoke a pack every 2½ days, and she says, But that is not what you are supposed to do. I have told you all about that.

That kind of personal contact with the teenage child who is pregnant will save more babies than almost anything we can do.

Mr. **Leland**. I thank the gentlelady and I would like to commend both Chairman Dixon of the Congressional Black Caucus, and you, Mrs. Boggs, for your compelling testimony.

Thank you, Mr. Chairman.

Mr. **Dingell**. The Chair recognizes the gentleman, Mr. Nielson.

Mr. **Nielson**. I have no questions at this time. I would thank Congressman Dixon and Congresswoman Boggs for very fine statements.

Mr. **Dingell**. Mr. Sikorski.

Mr. **Sikorski**. Thank you, Mr. Chairman.

I think it needs to be said again for the record that Congressman Dixon and the Black Caucus and Congresswoman Boggs and the Select Committee, she was the driving force behind its establishment and the spirit behind its work now, deserves special commendation for keeping us on our toes.

Thank you.

Mr. **Dingell**. The gentleman from Pennsylvania, Mr. Walgren.

Mr. **Walgren**. Thank you, Mr. Chairman.

I too would like to simply underscore the importance of the problem that we face and say how much I think of the efforts that both of you have made in that area. It is hard to look at the graphs of the differences in infant mortality from city to city.

I come from Pittsburgh which has the highest rate of any of the cities displayed. What could possibly go into that difference, I don't know, but I have a feeling that we in this country have done a miserable job on the Federal level of understanding what common element we should put in place for everybody. And when it comes to death, it is particularly dismaying that we have not put in place those common elements that would literally eliminate these kinds of differences in statistics.

There is absolutely no excuse for these cities to have different rates of this dimension or the races to have different rates of that dimension.

I just would like to say how much I think of your involvement with it and I hope that out of that and what concern that other members that are close to you and others will bring to it, we can make some progress on something that is ultimately so important.

Thank you, Mr. Chairman.

Mr. **Dingell**. The Chair thanks the gentleman.

The distinguished gentleman from California, the cochairman of this hearing, Mr. Waxman.

Mr. **Waxman**. Thank you, Mr. Chairman.

I just want to join my colleagues in commending Mr. Dixon and Mrs. Boggs for their testimony and for their concern in coming before us today. I think that what they have had to say is an opening for this hearing in a very appropriate way. They have expressed their concern representing the caucuses of our House Members that they represent as well as their own views and I think they are representing the views of the American people.

We don't want in our society today, after all that we are capable of doing, to allow babies to die because of cuts in government programs and failure to adopt new ones that could save their lives. We are truly pro-life when we take all measures appropriate to give a child a chance.

Thank you very much.

Mr. **Dixon**. Thank you.

Mr. **Dingell**. Ms. Boggs, Mr. Dixon, it has been a privilege having you before the committee. We thank you for your very helpful presentation. We thank you.

The Chair announces that our next witness is Mr. Jeffrey R. Taylor, Division of Maternal and Infant Health, Michigan Department of Public Health.

Mr. Taylor, the committee is keenly aware of your assistance to us and the valuable contents of your testimony. If you will come forward, we will proceed to swear you in. It is the practice of the committees to receive testimony under oath. Do you have any objection to testifying under oath?

Mr. **Taylor**. I do not.

Mr. **Dingell**. Do you desire to have present counsel to advise you on your rights and on the limitations of the committee?

Mr. **Taylor**. No, sir.

Mr. **Dingell**. There are copies of the rules of the committee, rules of the subcommittee, and rules of the House there before you at the table for your assistance in your appearance before this committee. If you have no objection then to appearing under oath, if you will please rise and raise your right hand.

[Witness sworn.]

Mr. **Dingell**. Would you now please state your full name and position, and we will be delighted to recognize you for your statement.

TESTIMONY OF JEFFREY R. TAYLOR, CHIEF, DIVISION OF MATERNAL AND CHILD HEALTH, MICHIGAN DEPARTMENT OF PUBLIC HEALTH

Mr. **Taylor**. My name is Jeffrey R. Taylor. I am chief of the Division of Maternal and Child Health, Michigan Department of Public Health.

Mr. **Dingell**. You are recognized with the thanks of the committee.

Mr. **Taylor**. Thank you, Mr. Chairman, and I thank you for the opportunity to be here this morning to address the important problem of infant mortality in the United States. I ask that my brief remarks here this morning be included in the record, as well as my full report.

Mr. DINGELL. Without objection, that will be done.

Mr. TAYLOR. Thank you. In addition, I am submitting several other reports, including a complete and up-to-date scientific literature review on prenatal care.

Mr. DINGELL. Without objection, that will be inserted in the record at the appropriate place.

Mr. TAYLOR. In 1948, the legendary director of the Children's Bureau, Dr. Martha May Eliott, made this statement. She said:

> We in America like to believe that our standard of living is high enough to provide not only food, shelter, clothing, education, and recreation for families, but also health care. However, when we look at the statistics, using children as a measure of social progress, we find that this is not the case.

We have already heard this morning a disturbing litany of statistics which as far as I could tell seemed quite accurate, and there is no need for me to repeat them. Suffice it to say that in the United States we are seeing approximately 40,000 infant deaths per year, about a quarter of a million babies born with moderate to severe congenital defects, and almost a quarter of a million infants born weighing less than 5½ pounds. You could look at any of the United Nations reports over the last 4 or 5 years, we are from 16th to 18th among industrialized nations, and continue to lag behind such countries as Japan, and from Michigan I am quite sensitive to that, Spain, Hong Kong, Canada, Australia, Singapore, and Ireland.

We have heard that black infant death rates are twice that of white. This has been a cause for concern in the scientific literature since the twenties. In Michigan this gap has indeed widened and we now have black infant death rates statewide that are 152 percent higher than they are for whites. In Detroit this gap has now spread to 186 percent higher.

There are many interrelated conditions which cause the problem of infant mortality, but probably the most prominent among them is low birth weight, which is babies born below 2,500 grams or less than 5½ pounds, and these babies are simply too small, too immaturely developed to do well.

What are the causes of this condition? They are well understood, and these causes are five. First of all, and most importantly, poverty, unemployment, and lack of health insurance. Second, inadequate nutrition for the pregnant woman and the developing fetus. Third is unintended pregnancy, and especially women with high-risk medical conditions who have an unplanned pregnancy, teenagers, children having children, and others who are unable to find the resources to plan the spacing of their children at more than 2-year intervals; fourth lack of prenatal care; and fifth, substance abuse. Here I am talking about cigarettes, alcohol, legal and illegal drugs.

I would like to concentrate on the area of prenatal care and would refer you to my full report for a complete discussion of many of the other factors. Obstetricians recommend that prenatal care should begin early, in the first trimester of pregnancy. In fact, they will also tell you that it is good to come in for a checkup to see that there are no contraindications for having a pregnancy. They enroll you in a program for prenatal care, about 12 visits over the 9 months of pregnancy. Prenatal care is effective, and most of you would not dream of having your wives go through a pregnancy without obtaining up-to-date and continuous prenatal care. Scientists have demonstrated that when you control for many other factors, I am talking about things like length of gestation, multiple pregnancies, or twinning, mother's age, education, and many other factors, the prenatal care by itself can increase birthweight by 6 percent for the entire population and by 8 percent for blacks.

Since differences between whites and blacks are so strong at this point and low birth weight is driving those increases, I think that this finding is a matter of the highest policy importance.

Other studies have been done which show for the very high-risk women and those who have fetal deaths and early-infant-death rates approaching 99 to 128 deaths per 1,000 births, that these high death rates can be cut to one-fourth of those levels by using team care, physician care, and nutrition counseling, dealing with social problems, nutrition, and health education, public health nursing.

There has also been interest in the 1980's; 4 years ago, a group in San Francisco demonstrated a new program for stopping preterm labor. This involved really working with the patients, teaching them how to recognize the signs of early labor, and sometimes hospitalizing them for use of labor-inhibiting drugs. The premature rates in this program were only 2.4 percent as compared to the U.S. average of 7 percent. This U.S. average of 7 percent, those folks having low-birth-weight babies account for 60 to 65 percent of all infant deaths. So I am telling you that study after study shows that prenatal care works.

In our State of Michigan, we had over 150 professional individuals and organizations which combined to create a new plan which has been endorsed by our Governor and is presently being heard in the legislature, on prenatal care. Our Governor put his money where his mouth was and put $1 million on the table and he is hoping for a little help from Washington.

We feel that there are important Federal responsibilities, one I mentioned, financing, others, setting national goals. You have heard some of them and you have heard that we may not meet the goals we set in the seventies. I also believe in monitoring and reporting on the problems. These should not come as surprising. We should have an active, ongoing reporting and investigating system, because the 1979 and 1980 decline in infant death rates is not good enough; because the situation is fluid and responsive to economic fluctuations.

The President's Commission last year reported that the Federal Government had an ethical responsibility for seeing that health care is available to all when market competition, private charity, and governmental efforts at the State and local level are insufficient. We feel that the Federal Government should use its judgment in selecting those interventions and in targeting financing to those areas of the country and those subpopulations in the country where maximum impact can be expected from the expenditure of scarce dollars.

We all recognize that there are limitations so, therefore, I urge you to put resources into those areas of the country in greatest need and that you emphasize the following proven low-cost interventions.

First, family planning, which according to Federal Government studies in 1966, when compared against other interventions, outranks them all 6 to 1. You cannot buy better health care for the dollar. It costs $75 per woman per year and in our State the title X program only meets 20 percent of the need. You can frontend a lot of problems with family planning.

Second, prenatal and infant care, you can purchase prenatal care for between $200 and $300 in any area of the country. The alternative of reducing infant death rates in the newborn intensive-care units is paying $1,000 a day, and it works, but most of us feel in the health profession that we have about milked that well dry and we probably have a better way to do it, and that is through preventive health programs like prenatal care and regular checkups for the newborn infant.

The third intervention is nutrition supplements, and I want to cite the effectiveness of the WIC program. For $30 a month to a pregnant woman or to her infant we know at least in pregnancy you can at least add a week of gestation and up to 180 grams of birthweight, which is a good advantage, well worth the dollars.

If we as a nation are to address the problem of high infant mortality in the black population, we must assure that these three measures are widely available to all who need them. Services must be expanded and targeted to vulnerable population groups.

Finally, I would like to close by citing a little tale out of the MCH tradition, and this is from a former State MCH director out West. A long time ago, writing about the Federal activity of Dr. Martha May Eliot in the Children's Bureau, she wrote:

> My introduction to Martha May Eliot came early in my career in public health. It was in the summer of 1936, shortly after I had joined the staff of the Montana State Board of Health as Maternal Child Health Director. The effect of the depression was still being felt, multiplied by eastern Montana's 8th year of drought. There were no crops, cattle were dying for lack of feed, and the temperature soared in the 100's. A telephone call soon came from Washington. It was Dr. Eliot of the Children's Bureau asking how the children were faring in the eastern counties. She informed me that a member of the Children's Bureau staff would arrive the following week to help me do a survey.

The point here is that Federal, State, and local governments all have responsibilities. Those have been detailed in my full report. None of us can shirk these responsibilities, and we must form a team at all levels of government if we are to assure the health and welfare of our children.

Thank you.

[Testimony resumes on p. 94.]

[The prepared statement and attachments of Mr. Taylor follow:]

INFANT MORTALITY: ANALYSIS AND RECOMMENDATIONS FOR ACTION

BY

JEFFREY R. TAYLOR, PH.D.
CHIEF, DIVISION OF MATERNAL AND CHILD HEALTH
MICHIGAN DEPARTMENT OF PUBLIC HEALTH

FOR

COMMITTEE ON ENERGY AND COMMERCE
SUBCOMMITTEES ON
OVERSIGHT AND INVESTIGATIONS AND HEALTH AND THE ENVIRONMENT
HEARING -- MARCH 16, 1984

Thank you, Mr. Chairmen, for the opportunity to appear here today to address the important problem of infanty mortality in the United States. I ask that my brief remarks this morning, as well as my full report, be included in the record of today's hearings. In addition, I am submitting for the record a complete literature review and three other reports on various aspects of prenatal care.

As the former Director of the Children's Bureau, Dr. Martha May Eliot said in 1948:

> We in America like to believe that our standard of living is high enough to provide not only food, shelter, clothing, education, and recreation for families, but also health care. However, when we look at the statistics, using children as a measure of social progress, we find that this is not the case.

While the chances of being born alive and surviving the first year of life have steadily improved in the United States for the population as a whole, the fate of a newborn baby in our country is by no means assured.

In the United States in 1979:

- 44,200 infants died before reaching one year of age.
- 241,000 infants were born weighing less than 5-1/2 pounds.
- 250,000 infants were born with moderate to severe birth defects.

The United States continues to lag behind other industrialized nations of the world, ranking from 16th to 18th on statistics published over the last four years by the United Nations. Some of the countries ahead of the U.S. include Japan, Spain, Hong Kong, Canada, Australia, Singapore, and Ireland.

The rates for individual states, localities, and subpopulations within the United States show wide variation in infant mortality rates. For example, a black child born in this country has almost double the risk of dying and recent studies are strongly indicative that the black-white racial gap is widening.

Several inter-related conditions comprise the leading causes of death for infants. Two-thirds of all infant mortality is related to the problem of the low birth weight infant or those babies born below 2500 grams or 5-1/2 pounds. This single greatest hazard for infants is also associated with increased occurrence of mental retardation, birth defects, growth and development problems, blindness, autism, cerebral palsy, epilepsy , and severe lung diseases such as respiratory distress syndrome.

Other significant causes of death include congenital defects, birth injuries, crib death, infectious diseases, and child abuse and neglect.

The point here is that fetuses and babies most often die when labor and delivery begin too soon. Premature newborns are small and not fully developed. Thus, even though these small babies account for only 7 percent of all newborns each year, they are responsible for 60 to 65 percent of all infant deaths.

What causes low birth weight?

There are five factors which have been identified by public health and medical scientists as the major contributing factors underlying the problem of low birth weight.. These factors are:

- Poverty, unemployment, and lack of health insurance.
- Inadequate nutrition.
- Unintended pregnancy.
- Lack of prenatal care.
- Substance abuse.

I would like to concentrate on the area of prenatal care and would refer you to the full report for a complete discussion of the other areas.

Current obstetrical standards strongly recommend that prenatal care begin as early in the first trimester of pregnancy as the woman feels she might be pregnant. Prenatal care should be continuous and number approximately 12 visits for the normal pregnancy. Infant death rates triple for those women having less than 5 prenatal visits.

Studies conducted by many scientists clearly show the importance of prenatal care and its relationship to low birth weight. When a number of other important factors are controlled, including length of gestation, twinning or multiple birth, mother's age, education, previous pregnancies, etc., scientists have found that prenatal care, BY ITSELF, is associated with important increases in birth weight. For all babies, this birth weight improvement amounts to 6 percent and for black babies, an 8 percent improvement. Since differences in birth weight account for much of the disparity in infant mortality rates between the races, the fact that prenatal care can be used to improve birth weight is a matter of the highest policy importance.

Other studies have been done, including ours in Michigan, which demonstrate that team prenatal care including medical, nutritional, psycho-social and educational components, reduce fetal and early infant deaths to one-fourth of their previous levels.

Scientific interest also has focused on the work of Herron and Creasy in San Francisco, who four years ago introduced a potent new intervention for reducing pre-term delivery rates. This intervention involves weekly care in special clinics in addition to regular obstetrical-medical management. Education of the patient, particularly in the recognition of pre-term labor, was an important part of the innovation. Patients are admitted to hospitals for introduction of new labor-inhibiting drugs if early labor is threatened. The results are impressive. Patients in this project had an exceptionally low prematurity rate of 2.4 percent in contrast with the U.S. average of about 7 percent.

Unemployment, lack of health insurance, and related problems have an enormous impact on many factors related to pregnancy outcome. For example, in a recent hospital survey we conducted in January of this year, women in Michigan from families where the major wage earner was unemployed were twice as likely to deliver low birth weight babies and twice as likely to experience delivery complications.

A State task force of 150 individuals and organizations has determined that there is a large financially needy group of women in our state who are uninsured, low income, and unable to qualify for Medicaid. They number 9,500 or 7.2 percent of all women giving birth.

Michigan has been hampered by Federal budget cuts for low cost and effective health programs such as family planning and maternal and child health services. During one 16-month period, our maternal and child health program recorded a loss of $6.7 million at a time when demand for services was increasing exponentially from the families of the unemployed.

We also estimated that we experienced a combined total of 194 excess infant deaths during the 1981 to 1982 time period when compared with our own rate of progress in reducing infant mortality in Michigan. We suffered 333 excess infant deaths if compared to the U.S. average.

Many of the states, including Michigan, feel there are several important Federal government responsibilities; responsibilities that have been in effect in this country since 1912 when President Taft created the U.S. Children's Bureau.

What are the Federal government responsibilities? There are six:

- Setting National goals
- Setting Standards for Publically Financed Health Care
- Financing
- Innovation
- Monitoring
- Training

The President's Commission reported last year that the Federal government has an ETHICAL responsiblity for seeing that health care is available to all when market competition, private charity, and governmental efforts at the State and local level are insufficient.

Clearly, the Federal government should use judgment in selecting those interventions and in targeting financing to those areas of the country where maximum impact can be expected from the expenditure of scarce dollars. We all recognize that there are limitations. Therefore, I urge you to put resources into those areas of the country in greatest need, and that you emphasize three key interventions.

(1) Family planning, which costs $75 per woman per year, is by far and away the most potent and low-cost intervention the public health authorities can bring to bear. Virtually, all social and religious groups in the country approve of some form of family planning.

(2) Prenatal and infant care are low cost and effective. For example, prenatal care can be purchased in most areas of the

country for between two and three hundred dollars. This is in sharp contrast to the much higher costs associated with newborn intensive care. This expensive treatment costs $1000 per day. Not only is the therapy highly expensive, but it also causes severe disruption, pain and suffering to the family.

(3) The WIC nutrition supplement program, which costs $30 per month for a pregnant or breast-feeding woman or infant, is another good investment. Such programs should be expanded to meet 75 percent of the needy in the United States.

If we, as a Nation, are to address the problem of high infant mortality in the black population, we must assure that these three measures are widely available to all that need them. Services must be expanded and targeted to vulnerable population groups.

I want to close by relating to you the experience of another State Maternal Child Health chief who had her first contact a long time ago with the former head of the Children's Bureau, Dr. Martha May Eliot. She writes:

> My introduction to Doctor Martha May Eliot came early in my career in public health. It was in the summer of 1936, shortly after I had joined the staff of the Montana State Board of Health as Maternal Child Health Director. The effect of the depression was still being felt, multiplied by Eastern Montana's 8th year of drought. There were no crops, cattle were dying for lack of feed, and the temperature soared in the 100's. A telphone call soon came from Washington. It was Dr. Eliot of the Children's Bureau asking how the children were fairing in the Eastern counties. She informed me that a member of the Children's Bureau staff would arrive the following week to help me do a survey.

The point here is that Federal, State and local governments, all have responsibilities. None of us can shirk these responsibilities and we must form a team if we are to assure the health and welfare of our children.

Thank you. I would be happy to answer any questions you might have.

INFANT MORTALITY:

ANALYSIS AND RECOMMENDATIONS FOR ACTION

EXECUTIVE SUMMARY

The most sensitive indicator of the health status of a country or a locality is generally thought to be the infant mortality rate: the number of infants born alive but dying before their first birthday.

The Unites States continues to lag behind other industrialized nations of the world, ranking from 16th to 18th on statistics published over the last four years by the United Nations. Some of the countries ahead of the U.S. include Japan, Spain, Hong Kong, Canada, Australia, Singapore and Ireland.

Two-thirds of all infant mortality is related to the problem of the low birth weight infants, or those babies born below 2500 grams (5½ pounds). This single greatest hazard for infants is also associated with increased occurrence of mental retardation, birth defects, growth and development problems, blindness, autism, cerebral palsy, epilepsy and respiratory distress syndrome.

Other significant causes of infant death include congenital defects, birth injuries, sudden infant death syndrome, infectious diseases and abuse and neglect.

Black infant death rates now approach twice that of white rates (19.3 black, 9.9 white) and recent studies indicate that the gap may be widening.

Infant mortality is a problem for which there are known, low-cost solutions. Interventions which will reduce low birth weight and resultant infant mortality include: family planning, prenatal care, nutrition supplements for pregnant women and infants, and substance abuse education and control.

Since poverty, unemployment and lack of health insurance are also powerful determinants of infant mortality, it is also clear that these problems must be addressed. With one in five of all U.S. children being born into poverty the potential exists for further short term infant mortality and morbidity increases in hard hit states, cities and certain subpopulations. Over the longer term as these children grow up, there could also be serious labor force inadequacies.

The report presents the problem of infant mortality in detail and offers four recommendations for immediate adoption.

RECOMMENDATIONS

- THE PROBLEM OF HIGH INFANT MORTALITY MUST BE IMMEDIATELY ADDRESSED BY FEDERAL, STATE AND LOCAL GOVERNMENTS AND SPECIAL EMPHASIS MUST BE GIVEN TO CLOSING THE GAP BETWEEN WHITE AND BLACK INFANT DEATH RATES.

- MATERNAL AND CHILD PREVENTIVE HEALTH SERVICES ARE BOTH LOW COST AND DEMONSTRABLY EFFECTIVE AND SHOULD BE IMMEDIATELY EXPANDED TO REDUCE LOW BIRTH WEIGHT, A CONDITION WHICH IS ASSOCIATED WITH TWO-THIRDS OF ALL INFANT DEATHS. THESE SERVICES INCLUDE FAMILY PLANNING, PRENATAL CARE, SUPPLEMENTAL NUTRITION, SUBSTANCE ABUSE, OUTREACH AND EDUCATION.

- AUTOMATED "SENTINEL" VITAL AND HEALTH STATISTICAL SYSTEMS SHOULD BE ESTABLISHED IN KEY LOCATIONS ACROSS THE UNITED STATES TO PROVIDE AN EARLY WARNING SYSTEM FOR INFANT MORTALITY FLUCTUATIONS.

- A NEW UNIT FOR CHILDREN, YOUTH AND FAMILIES SHOULD BE ESTABLISHED AT A HIGH LEVEL WITHIN THE FEDERAL GOVERNMENT. THIS UNIT MUST, AMONG OTHER IMPORTANT FUNCTIONS, "INVESTIGATE AND REPORT" ON THE CONDITIONS WHICH AFFECT THE HEALTH AND WELFARE OF AMERICA'S MOTHERS AND CHILDREN.

THE PROBLEM

Introduction

Infant mortality counts include all reported deaths of newborns from the time of their live birth up to their first birthday. Infant mortality is recognized as the most sensitive indicator of the health status of a country or a locality.[1]

The chances of being born alive and surviving the first year of life has steadily improved in the United States.[2] However, despite this progress, the fate of an infant born in the United States is by no means assured. In the U.S. in 1979:

- 44,200 infants died before reaching one year of age
- 241,000 infants were born weighing less than 5.5 pounds.
- 250,000 infants were born with moderate to severe congenital defects

The United States is generally considerably behind other industrial nations in this health indicator. From year to year, United States ranks from 15th to 18th usually following such countries as Japan, Canada, Australia, Hong Kong and Singapore. The table below shows the population and infant mortality for 25 countries who have population levels above two million. The countries listed are those having the lowest infant mortality rates reported in 1980 by the United Nations.

TABLE I

Population and Infant Mortality Rates for 25 Countries[3]

COUNTRY	POPULATION (MILLIONS)	1980 IMR
Sweden	8.3	6.9
Japan	116.8	7.5
Finland	4.8	7.6
Norway	4.1	8.1
Denmark	5.1	8.4
Netherlands	14.1	8.6
Switzerland	6.4	9.1
France	53.7	10.0
Canada	24.0	10.4
Belgium	9.8	11.0
Australia	14.6	11.0
Spain	37.4	11.1
Hong Kong	5.0	11.2
Ireland	3.4	11.2
Singapore	2.4	11.7
United Kingdom	55.9	12.1
German Democratic Republic	16.7	12.1
United States of America	227.2	12.5
German Federal Republic	61.6	12.6
New Zealand	3.1	13.0
Austria	7.5	14.3
Italy	57.1	14.3
Israel	3.9	15.1
Czechoslovakia	15.3	16.6
Greece	9.6	17.9

Since 1980, the United States has continued its overall improvement and shows a provisional infant mortality rate of 11.2 for 1982.

The rates for individual states, localities and population groups show wide variation, however, from the United States population average. Great disparities exist according to race and ethnic origin. A black child born in this country has almost double the risk of dying before reaching their first birthday and recent studies are strongly indicative that the black-white racial gap is widening.[4] Other studies suggest that the rate of decline of infant mortality in the United States may be leveling off, perhaps, making it impossible for the United States to reach its 1990 infant mortality goal of reducing infant mortality to more than 9.0 deaths per 1,000 live births for the population and no more than 12.0 deaths per 1,000 live births for any racial or ethnic group or geographic area of the country.[5]

Public health officials in Michigan were distressed in the Spring of 1982 when we learned that the final 1981 infant mortality rates for our state would show an increase. Complacent, after experiencing almost steady declines over the past four decades, we were not expecting a reversal in the downward trend of this important health indicator. The 1981 report on infant deaths in Michigan detailed one of the greatest year to year increases in infant mortality since World War II.[6] Michigan's infant mortality rate rose from 12.8 deaths for 1,000 live births in 1980 to 13.2 deaths in 1981.

By the end of 1981, Michigan ranked as the 36th worst of 50 states in infant mortality. Michigan appeared to have moved from a median state in terms of infant mortality to one of the states with great difficulty. In 1981, Michigan had a mortality ratio 13 percent above the national average.

Analysis of the major causes of death indicated that the increase was spread across all categories with the exception of deaths due to infectious and parasitic disease. The rise in infant death rates was also recorded across a wide geographic area with nine of the fourteen state planning and development regions showing an increase in infant mortality. Teenage mothers and black inter-city populations and the rural poor seemed the hardest hit. Detroit reported some census tracts with death rates of 33 per 1,000 live births, a level far exceeding that reported by many third world nations.

The pervasiveness of the infant death increase in Michigan across wide geographic areas of the state and nearly all diagnostic categories combined with a review of infant mortality rates in other states, pointed consistently to Michigan's poor economic condition of that time. Persistently high unemployment combined with unprecedented reductions in virtually all public services positioned Michigan for increases in a variety of socio-economic and health indicators, one of which was the infant mortality rate.

Causes of Infant Death

Several interrelated conditions comprise the leading causes of death for infants. The relative numbers of infant deaths, their causes and associated risk factors, vary by infant age. Usually infant deaths are analyzed in two separate time periods. The first is neonatal which covers deaths from birth to less than 28 days of age. The second category is post-neonatal which are those deaths occurring to babies over 28 days of age to the first birthday.

The leading causes of infant death are birth injury, anoxia or apoxia associated with difficult labor and delivery or conditions associated with immaturity.[7] Most of these deaths occur during the neonatal period. Congenital defects are also a significant cause of infant death.

Table 2 below shows infant mortality for 10 selected causes of death in the United States for 1981. All causes are shown in terms of the number of infant deaths per 100,000 live births.

Table 2

Infant Mortality for Ten Selected Causes of Death: United States, 1981.[8]

Cause	ICDA 9th Rev. Classification Codes	1981* (est)
All Causes		1,172.3
Certain gastrointestinal diseases	008-009,535,555-558	8.2
Pneumonia and influenza	480-487	19.4
Congenital anomalies	740-759	243.0
Disorders relating to short gestation and unspecified low birth weight	765	103.5
Birth trauma	767	23.6
Intrauterine hypoxia and birth asphyxia	768	38.0
Respiratory distress syndrome	769	116.0
Other conditions originating in perinatal period	760-764,766,770-779	293.1
Sudden infant death syndrome	798.0	138.2
All other causes	Residual	181.2

* Death per 100,000 live births.

Infants born with a very low likelihood for infant death, disease or disability are most often those who have grown and matured in a healthy woman until labor and delivery at a gestational or intrauterine age of 38 to 42 weeks.[9] These babies are called full term newborns and they most often weigh more than 2500 grams or 5.5 pounds. In contrast, fetuses and babies most often die when labor and delivery begins too soon. These "premature" newborns are small and not fully developed and they account for most of the low weight newborns who by definition fall below the 2500 gram or 5.5 pound standard. Low birth weight babies account from 6.8 to 7.4 percent of the total newborn population in most states of the U.S. These low birth weight babies, however, are responsible for 65 percent of neonatal deaths and 60 percent of all infant deaths.[10] These small babies, because of their immaturity, are highly susceptible to birth injuries, infections and lung problems especially respiratory distress syndrome. Many may recall the infant born to President and Mrs. Kennedy who was born prematurely and suffered the lung problem hyline membrane disease. Premature infants are at least twenty times more likely to die than full term infants.[11]

As Harris, Keeler and Michnich point out in their impressive, Algorithms for Health Planners: Volume II Infant Mortality, other fetuses and newborns susceptible to death are those with stunted growth and development due to intrauterine malnutrition or chronic lack of oxygen.[12] These babies are called small for dates or small for gestational age and typically weigh less than the expected weight for their gestational age. Full term newborns, those born at 40 weeks of gestation or above, who are small for dates, can weigh considerably less than 2500 grams and are especially susceptible to acute lack of oxygen or asphyxia at birth, infection and hypoglycemia (low blood sugar). The probabilities of neonatal death are substantially higher than for newborns of average birth weight of the same gestational age.[13]

Low Birth Weight

Some of the major causes or low birth weight are reviewed in the ensuing sections. In the majority of instances, the reader will note that the status of the infant at birth is highly dependent upon maternal health and the receipt of appropriate medical and other health care during pregnancy. In addition, the mother's routine health behaviors and her ability to take care of herself and her newborn all contribute to the health status of the infant.

Poverty. A large part of the difference between infant death rates for white and black infants is due to the fact that a greater proportion of black infants are born at weights below 2500 grams or 5.5 pounds. The relevant data for Michigan are shown in the Table 3 below for the years 1980 through 1982.

Table 3

Numbers and Ratios of Low Weight[1] Live Births by Race, Michigan and Detroit Residents, 1980-1982

AREA AND RACE		NUMBER			RATIO		
		1980	1981	1982	1980	1981	1982
Michigan	Total[2]	9997	9752	9572	68.9	69.4	68.4
	White	6749	6621	6357	56.7	57.1	55.8
	Black	3123	3024	3108	129.4	133.2	138.6
Detroit	Total[2]	2275	2235	2298	110.8	117.9	124.2
	White	428	394	370	71.2	70.7	69.3
	Black	1837	1820	1915	128.4	138.2	147.7

[1] 2500 grams or less

[2] Includes races other than white and black.

Michigan has had a very slight increase in the low birth weight ratio between 1980 and 1982. In 1980, there were 68.9 low birth weight infants born per 1,000 live births and this increased slightly to 69.4 in 1982. However, the racialbreakdown indicates that while there was a slight improvement for whites that black low birth weight ratios worsened from 129.4 per 1,000 to 139.6 per 1,000. This differential is greatly accentuated in Detroit where after two successive years of increase the ratio had increased to 147.7 low birth weight births per 1,000.

Evidence indicates that racial differences are associated with corresponding socio-economic differences.

The view that the racial differential in low birth weight incidence is a genetic phenomenon, and thus cannot be eliminated, has been put forth by some health scientists. However analysis of birth weight distribution according to socio-economic status among homogeneous ethnic populations reveals a clear relationship between birth weight and social class, with the birth weight of black infants of higher socio-economic status comparable to that of whites.[14]

Other scientists like Gortmaker of Harvard University have made intensive reviews of the relationship between poverty and infant mortality in the United States.[15] Using national data, the Gortmaker study estimated the relative impact of a variety of biological, social and economic factors upon the risk of infant death. Methods for this study included the multivariant approach in which estimates of the relative risk for infant death were observed in various sub-populations. Within the white population of legitimate births, the estimates indicated that poverty is associated with relative risks of neonatal and post neonatal mortality 1.5 times greater than experienced by infants not born in poverty, independent of a variety of maternal and familial characteristics and the birth weight of the infant. Gortmaker concluded that the estimated direct effects of poverty on infant mortality are larger than the effects of poverty mediated by the birth weight of the infant. He also indicated that the persistence of poverty and the continuing unequal distribution of health care resources to pregnant women and young mothers in the United States implies the reproduction of these differentials to the present day.

Antonovsky and Bernstein examined the relationship between the components of infant mortality and social class by analyzing data available from infant mortality studies undertaken in Western Europe and the United States.[16] It was found that although infant mortality had declined dramatically in the past century, the inverse relationship between social class and mortality has not narrowed, in spite of the advances in medicine and surgery, sanitation and housing conditions and the overall rise in living standards which were presumed to be of special benefit to lower socio-economic classes. The authors concluded that an important focus of action, if the social class gap is to be closed, would come through less traditional medical techniques and broader use of the instruments of social change including education and welfare strategies.

Since prematurity and low birth weight are generally twice as common among blacks as among whites, this probably acconts for much of the overall observed racial mortality differential.[17] Certainly it is disturbing that poverty seems to be on the increase both in Michigan and the United States.[18] The Children's Defense Fund Study showing large increases in the number of children living in poverty in the United States now estimated at one in five, should be a cause of concern given its direct and independent relationship upon adverse infant mortality rates. Michigan, which has experienced double digit unemployment levels over the last four years, now reports that one in four children are being born into poverty. At the present time approximately 15 percent of the entire nine million Michigan population is participating in some form of public assistance.

Inadequate Nutrition. Nutrition is a component of particular concern during pregnancy and infancy. From clinical experience, the impact of an inadequate diet is greater on an infant than on an older child or adult. An inadquate diet during fetal development or infancy affects the entire growth and development process throughout early childhood and may have lasting effects into adulthood. Infants who are nutritionally deprived experience brain growth retardation. Insufficient caloric and protein intake slow bone growth and delay calcification. The duration of under nutrition and concomitant poor health status for the mother and the infant are the most significant causes of permanent growth retardation in a child.

Nutrition deficient infants do not spend their energy on development and are therefore cheated of their full genetic potential. Nutritional information recommending proper food intake during pregnancy and infancy is essential particularly in mothers of first born babies who are often inexperienced about the nutritional needs of infants and appropriate feeding practices for the newborn.

Failure to thrive is a condition associated with nutritional problems and is defined as a rate of gain in weight and/or length more than two standard deviations below the mean for an interval of at least two months. There are both organic and non-organic bases for failure to thrive and establishing a correct diagnosis requires careful evaluation to rule out malabsorption syndromes from the interactional problems of care giver and infant.

Michigan health scientists are therefore quite concerned given the well documented reported increases in admissions to hospitals in the Detroit area for failure to thrive.

Dr. Ingeborg Krieger, Director of Children's Hospital of Detroit's Failure to Thrive Project, has verified that the number of Detroit children needing medical care for malnutrition nearly doubled between 1980 and 1982. Although figures are not in at this point for 1983, Dr. Krieger believes that they will be higher. She feels that this situation "has a clear correlation with economic changes that have occurred in Detroit during the 1980-82 time period."[19] According to Dr. Krieger's data there were 196 admissions for malnutrition in 1980, 386 in 1981 and 375 in 1982. Thus, these figures for the 1980-82 period represent an 87.5 percent increase in hospital admissions.

Clearly many Michigan communities continue to rely on neighborhood food kitchens to supply the daily nourishment needs of women living in poverty.

Since poor nutrition is one of the correlates of low birth weight, maternal weight before and weight gain during pregnancy are predominate influences on infant birth weight. It has been recommended that the total weight gain be at least 10-12 kilograms during the prenatal period. Diet supplementation programs such as the special supplemental food program for women, infants and children has produced statistical increases in infant birth weight.[20] Data from more than 30 years ago suggest that an adequate diet during the last weeks of pregnancy may even be able to offset the effect on birth weight of earlier severe dietary deficiencies.[21]

Unintended Pregnancy. Fertility studies have shown that in the United States almost all people, regardless of ethnic, religious or socio-economic background desire to have smaller families and use or expect to use contraception. Effective fertility management has been shown to contribute substantially to the health of infants as well as to family health and stability. Any unintended pregnancy presents special problems for the family, the child and society. Very many children, particularly at close intervals, is associated with a number of complications in pregnancy and delivery including placenta praevia, hemorrhage, prolapsed cord, abnormal presentation or position of the fetus, rupture of the uterus and postpartum intrauterine anertia with severe bleeding.[22] Increased numbers of pregnancies may lead to nutritional deficiency in the mother which will result in anemia, calcium deficiency and difficulties in breast feeding.

An interval of approximately two years between the end of one pregnancy and the beginning of another is associated with the lowest incidence of late fetal and neonatal mortality and prematurity.

Stillbirths are the most frequent among primiparous women especially if the mother is over 35. The very young mother also displays a somewhat higher stillbirth rate. Older parents are more likely to have children with congenital defects of certain types.

Economically the birth of an unplanned child to the family which cannot support it adds to the responsibility that federal, state and local governments must assume. It has been estimated that for every dollar invested by the federal and state government in family planning services, there is a $2.00 savings in governmental cost for health and welfare services within the following year.[23] Additionally, the burden of providing even minimal health care during pregnancy, labor and delivery and postpartum adds significantly to the cost for health care support which must be provided to the medically indigent by a public means.

Reduction of family planning services to the poor and the near poor are thought to exacerbate existing problems in infant mortality by delaying attention to the unplanned pregnancy until families increase in size to the point of being classified as below the poverty level. Finally, federal government studies going back to 1966 indicate that when the various infant mortality intervention strategies are compared on the basis of cost effectiveness, that family planning outranks its closest competitor by a ratio of 6 to 1.[24]

Lack of Prenatal Care. Prenatal care, especially the adequacy of care, as measured by the timing and the number of prenatal visits has been demonstrated to be an important factor in low birth weight.[25] The meaning of this association has been difficult to establish because the number of visits does not necessarily indicate the quality of care and because access to care and quality of care in turn related to many other variables.

Current obstetrical standards strongly recommend that prenatal care begin as early in the first trimester as the woman feels that she might be pregnant. Waiting until after the second missed period is often thought to be poor advice in contemporary medical circles. In fact, most obstetricians would recommend that the woman have a thorough health history and examination prior to becoming pregnant to assure that there are no medical,social or other contraindications for pregnancy.

Prenatal care should be continuous and scheduled every four weeks until 28 weeks of pregnancy, every two weeks until 36 weeks of pregnancy and every week after the 36th week of pregnancy. This care should include health history initial assessments, including risk indexing with a standardized tool, nutrition services, psycho-social services, health education and counselling as needed.

Studies conducted by Budetti, Showstack and Minkler, clearly show the importance of prenatal care in relationship to low birth weight.[26] These scientists controlled for a variety of other important factors including: length of gestation, the baby's sex, whether the child was single or part of a multiple birth, mother's age, mother's education, the number of previous pregnancies, complications of pregnancy, and the type of hospital birth. They found that prenatal care is associated with an important increase in birth weight. For all babies, adequate prenatal care improved birth weight by about six percent and for black babies by approximately eight percent. Again, since differences in birth weight account for the disparity in infant mortality between the races, the fact that prenatal care can be used to improve birth weight distribution and thus black infant mortality rates. should be a matter of highest policy importance.

Several other studies have been done evaluating the impact of prenatal care on birth outcome. Very often the benefits of publicly funded maternity and infant care programs in terms of reduced infant or perinatal mortality have been difficult to demonstrate. The Michigan group developed a new method of evaluation in which patients served as both study and control subjects. In this program evaluation, using the so-called team care or maternity and infant care program model developed in the 1960's, a reduction in fetal and neonatal deaths from rates on the order of 99 to 128 per 1,000 live births, to 28 per 1,000 was observed.[27] One other well controlled study conducted by the Cleveland Perinatal Center showed similar if not more impressive findings when medical care only was pitted against team care (medical nutrition, medical social work, health education and public health nursing).[28]

Prenatal care and pregnancy outcome has been studied in an HMO setting, vis-a-vis the general population in an interesting multivariant cohort analysis by the University of Rochester School of Medicine.[29] Four thousand one hundred and forty eight deliveries in an HMO clinic were compared with 19,000 births in the Portland, Oregon area. With maternal risk held constant, low birth weight, neonatal mortality and infant mortality were 1.5 to 5 times greater with late, less frequent prenatal care than with early frequent care. Multivariate analysis demonstrated a positive relationship between prenatal care and birth weight. This analysis also indicated that independent of all maternal risk factors that HMO membership was associated with an increase of 30 grams in the predicted birthweight. However, this slight increase in birth weight seemed to have no apparent effect on mortality.

Finally, in a much discussed evaluation of a pre-term birth prevention program conducted by Herron, Katz and Creasy potentially potent new intervention programs were demonstrated as being instrumental in reducing pre-term delivery rates.[30] In the first year of this program, the pre-term delivery rate at the University of California, San Francisco, was reduced by nearly two-thirds. The exceptionally low prematurity rate of 2.4 percent in contrast to the U.S. average of approximately 7 percent seemed to result from increasing the proportion of patients who are suitable candidates for early and effective prenatal therapy. Control studies have not been conducted at this point. This intervention involves weekly care in special clinics in addition to regular obstetrical management. Education for the patient particularly in the recognition of pre-term labor was an important part of the innovation. Patients were also admitted to hospitals for introduction of new labor inhibiting drugs if pre-term labor was suspected. Staff training and education was also an important part of the program. Several states, including Florida have begun replications of this pre-term birth prevention program.

A review of Table 4 below shows the important relationship to both whites and blacks of prenatal visitation. When the number of prenatal visits falls below four, infant mortality rates in Michigan soar from an average of 12.5 deaths per 1,000 to 65 to 70 deaths per 1,000. This trend holds true for both whites and blacks. As the number of prenatal visits increases, infant mortality rates begin to come down. The most important indicator on the table may be for those high risk patients who have large numbers of visits. Even those with 20 or more visits, adequate care seems to greatly attenuate infant mortality rates.

Table 4

Infant Death Rates by Number of Prenatal Visits and Race: Michigan, 1980

Number of Prenatal Visits	All Infants	White	Not White
0	72.5	52.4	93.0
1-4	65.4	65.0	66.2
5-9	19.8	18.3	25.7
10-14	5.8	5.2	10.1
15-19	5.5	5.2	7.5
20 or over	9.4	9.4	9.5
Total	12.5	10.3	22.5

Source: Michigan Department of Public Health
Office of Vital and Health Statistics

Dr. Gloria Smith, Director of the State Health Department, recently established a special prenatal task force involving over 150 outstanding Michigan health professionals and organizations to study the problem of inadequate prenatal care and its relationship to infant mortality. Among the major findings and recommendations were:

- Approximately 9,500 Michigan women are pregnant each year and have no health insurance or Medicaid. These women have inadquate income to pay for prenatal care and will need financial assistance.

- Forty percent of the financially needy group is located in the tri-county area of Wayne, Oakland and Macomb Counties and 60 percent reside in outstate rural Michigan.

- Scientific studies show that for every dollar spent on prenatal care, $4.00-$6.00 can potentially be saved in newborn intensive care and related costs. Many of these hospital bills are not being paid and constitute a serious burden of uncompensated care for hospitals.

- Other important barriers to prenatal care for all Michigan women must be addressed such as transportation problems, provider shortages especially in inter-city and rural areas, legal barriers such as a minor's right to consent to their own prenatal care and outreach and education services for hard to reach and vulnerable population groups.

- The Medicaid system should be upgraded and adopt the same standards of prenatal and postpartum care as recommended by national and state professional groups. The Medicaid program should also adopt a high risk prenatal program for certain diagnostic groups of patients.

- Local health departments should be responsible for assuring access and availability of prenatal and postpartum care for all women residing in their jurisdictions who need assistance in making arrangements. Financial help should only be given to those without health insurance or Medicaid coverage who also meet low income guidelines.

Several important documents and findings resulted from the Director's Task Force including a major report entitled, Prenatal Care: A Healthy Beginning For Michigan's Children.[31] Other new methods for estimating need and access and availability were demonstrated.

There are many excellent discussions of the value of prenatal care especially in detecting and managing health problems. The March of Dimes Series 2 on Prenatal Care, Module 6 entitled, Antepartal Predition of Fetal and Neonatal Risk is among the best. To this listing we add ours prepared by The Division of Maternal and Child Health Obstetrical Consultant, Lee B. Stevenson, M.D. (See Appendix A).

Substance Abuse. There are no safe levels established for the intake of alcohol and most legal or illegal drugs taken during pregnancy. Recent evidence suggests that even small amounts of alcohol or drugs, when ingested by the pregnant woman at critical points in the baby's development in utero will lead to premature delivery, low birth weight for the length of time the pregnancy was carried (the small for gestational or SGA baby) and infants that are born with serious illnesses or birth defects. It is obvious that American women need to become more knowledgeable about the misuse of cigarettes, alcohol and drugs in pregnancy and they must act on that knowledge if they are to secure better pregnancy outcomes.

The care of the drug dependent pregnant woman and her infant has been a special area of concern in Michigan.[32] The diagnosis of pregnancy, prenatal care of the pregnant drug addict including detoxification or Methadone maintenance and psychological care are expensive and difficult treatment programs to manage. The resulting neonatal addiction also creates many problems which must be managed often in expensive tertiary level hospital centers.

It is obvious to most in the field that simple instructions "not to use illegal drugs, cigarettes or alcohol during pregnancy" are often not effective. While it is encumbent upon the individual to take the important first steps of making themselves available to care, effective management requires the cooperation of a full team of health professionals and is difficult.

Birth Defects

A birth defect is an abnormality of structure, function or body chemistry, that may be genetically determined, due to the effect of environmental factors on the unborn baby, or a combination of genetic and environmental factors. Each occurrence requires precise diagnosis and family counseling. Medical treatment is often difficult and expensive although an increasing number of birth defects can be diagnosed or completely corrected prenatally.

One in 33 children have a major birth defect noted at or near birth, and 5-10 percent of these defects result in the infant's death.

It should be noted that birth defects account not only for large numbers of infant deaths, but also for many hospitalizations. One in three pediatric hospital beds is filled by a child with a birth defect.

Inherited Disorders. Although approximately 3000 genetic diseases are known, five types are of particular concern to the public health system.

Downs Syndrome affects about 240 Michigan newborns each year, and is associated with mental retardation and varying degrees of handicap, requiring life long care. The syndrome is associated with advanced maternal age (35+ years), and can be diagnosed prenatally.

Neural tube defects. Severe spinal cord and brain defects occur in 280 Michigan newborns each year. The risk is 2.5 times greater for whites than for other racial groups. Some of these defects are incompatible with survival, while others result in spinal malformation, nerve damage or destruction, weakness or paralysis of the legs and problems with bowel and bladder control. Individuals and families encounter all of the difficulties associated with severe life long disability, and much of the expense for treatment and habilitation is borne by society.

Defects related to particular ethnic groups. These defects include sickle cell anemia, Thalassemia Syndromes, Tay-Sachs and cystic fibrosis. In Michigan, about 50 black infants are born with sickle cell disease each year and another 100 black infants will carry the sickle cell trait. Sickle cell disease is an inherited autosomal recessive metabolic disorder which stunts growth, has painful crises, limits activity, and shortens life.

Thalassemia Syndromes are characterized by anemia, failure to thrive and skeletal abnormalities. These syndromes are most commonly seen in individuals of Greek and Italian descent. In Michigan, approximately 6400 individuals carry the trait and 20 have the most severe form of the disease. Additionally, 1 percent of the black population may be affected by some form of this disease.

Tay Sachs disease is 100 times more frequent among Jewish families of Eastern European descent than in the general population. Tay Sachs infants appear normal at birth but die by age five as a result of progressive neurologic deterioration.

Cystic fibrosis occurs primarily in whites and affects one of every 2,000 births or about 70 newborns each year. In this disease, abnormal mucus production leads to chronic lung obstruction and disability in later life.

X-linked defects. Hemophilia and muscular dystrophy are two examples of prominent x-linked defects. Hemophilia is due to deficiencies in the clotting mechanism of the blood. In muscular dystrophy, muscle is replaced by fat, leading to gradual muscual weakness and wasting.

Metabolic disorders. The most widely known disorder of this group is PKU (phenylketonuria). It involves a genetic liver enzyme deficiency which, if not detected and treated, will impair brain function and lead to profound retardation. Six newborns areaffected each year in Michigan, and another six have variations of this disease.

Congenital hypothyroidism is a metabolic disorder which, when untreated, causes mild to moderate physical and mental retardation. Even though the infant may appear normal at birth, this disease can be diagnosed through screening of blood samples taken within the first few days of life. Twenty seven infants are born each year in Michigan with this problem.

Galactosemia is an autosomal recessive inherited metabolic disorder which, when untreated, causes cataracts, liver disorders, and mental retardation in two to three newborns affected each year.

Disorders of External Origin. Birth defects can also result from maternal exposure to infectious or toxic agents.

Radiation and chemicals. Radiation and chemicals in the work place may be damaging to the developing fetus, as may *in utero* exposure to radiation from diagnostic or therapeutic x-ray studies or nuclear medicine procedures. Leukemia and other childhood cancers are related to such exposure. Ionizing radiation exposure of infants is of similar concern due to the potential for the development of disease states with life threatening consequences. Additionally, highly toxic chemicals from the workplace may be carried out of the workplace into the home with potentially damaging effects to the fetus.

Drugs. Drugs like DES (diethylstilbestrol) and anti-cancer agents are among many known or suspected agents which adversely affect the fetus and newborn. High maternal consumption of alcohol accounts for about 30 birth defects each year in Michigan. Other maternal drug addictions or severe substance abuse account for many seriously ill newborns who require expensive newborn intensive care services.

Sexually-transmitted diseases. Sexually-transmitted diseases may produce birth defects. Congenital syphilis is not the significant problem it once was, as attended to by the decline in number of reported cases. In 1950, there were 335 Michigan cases; in 1960, 133; in 1970, 154 and in 1981, 4 cases. Development of an overall effective syphilis control program, and a broader scope and better quality of health care in pregnancy are the reasons for the declining morbidity rates. However, severe deformities and stillbirths are very real threats in the case of an untreated syphilitic woman giving birth.

A baby born to a woman infected with gonorrhea may be rendered blind by the infection. As required by law, persons and institutions responsible for delivery must instill in the eyes of a newborn an approved prophylaxis to prevent this condition. With the increasing quality of health care, the incidence of the infection has been reduced. Only fifteen cases of gonococcal ophthalmia neonatorum were reported in 1981 in Michigan.

There is no effective cure for Herpes Simplex II. Since it is not a reportable disease, the true scope of the disease in Michigan is unknown. However, national estimates indicate five to twenty million people in the United States are infected and 500,000 new cases occur annually. It is recommended that expectant mothers with a history of genital herpes be considered for delivery by C-Section to avoid the possibility of infection of the infant. Neonatal infections are severe and occasionally fatal.

Other infections. Infections other than those that are sexually transmitted may profoundly affect the newborn. Cytomegalovirus, for example, may cause a wide range of defects ranging from deafness and psychomotor retardation to low birth weight, enlargement of liver and spleen, jaundice and gastrointestinal abnormalities. But of all the infectious causes of birth defects, rubella is unique in its capacity to cause an epidemic of birth defects. The last pandemic of rubella occurred in 1964-65 and caused 20,000 stillbirths and 30,000 congenitally deformed babies in the United States. .

The Congenital Rubella Syndrome (CRS) occurs among 20-25 percent of infants born to women who acquired rubella during the first trimester of pregnancy. Multiple serious defects are the norm with the combination of cataracts, deafness and heart defects occurring most frequently and comprising a distinctive triad. CRS can and has been prevented by reducing the chances of maternal exposure. Since 1970, the focus of this effort has been the widespread immunization of children who serve as the reservoir of infection. More recently, adolescent and adult women have been immunized to provide more direct protection. The immunization of young women in the child bearing age group (ages 15 to 40) was slowed for a time by fears that the vaccine virus might also be capable of producing defects. A body of evidence has accumulated however, to support the gradual expansion of a vaccine target group to include fertile women if the risk of pregnancy could be kept small during the immediate post vaccination period.

Rubella morbidity has dramatically dropped since the advent of vaccines and especially since 1979 when an intensive effort to immunize older school students was conducted. The number of CRS infants born each year has also dropped but not in direct proportion to the overall morbidity. In 1980, six cases were reported.

The adolescents not immunized in the early and middle parts of the past decade have now moved into their prime childbearing years and, if exposed, still have a significant risk of maternal rubella infection. Women who were between eleven and seventeen years old during the rubella campaign of 1970-71 were too old to have been offered rubella vaccine and the subsequent drop in rubella morbidity prevented many of them from acquiring natural antibodies. This cohort in 1982 is now between 22 and 29 years of age.

Other Problems

Infectious Diseases. Sporadic gastrointestinal and respiratory illnesses such as pneumonia, flu and diarrhea cause a significant amount of morbidity and mortality in this age group.

Nosocomial neonatal infections are outbreaks of life-threatening staphylococcal illness and other infectious diseases in nurseries requiring immediate epidemiological investigation to identify the sources and control the outbreak. Twelve to 24 such outbreaks occur in Michigan hospitals every year.

Injuries at Birth. Birth injuries, difficult labor and other conditions causing lack of adequate oxygen for the infant are among the leading causes of newborn deaths. In 1979, there were 45 infant deaths related to intrauterine hypoxia and birth asphyxia. Significant morbidity, mainly cerebral palsy, is also present and will be more easily measured when data on Michigan one and five minute apgar scores is analyzed.

Complications of labor and delivery may also lead to poor pregnancy outcomes. Small pelvic cavity, hemorrhaging from the site of placental attachment, abnormal placental location, abnormal fetal position or sudden crises related to toxemia, heart disease or diabetes can all lead to birth injuries.

Sudden Infant Death Syndrome. About 250 infants in Michigan die of crib death each year. The figure could be as high as 350 per year if national incidence rates were applied. The difference may be due to lack of recognition of the child's death as SIDS. Autopsy is the only means by which a correct diagnosis may be made. Recent evidence has been accumulating that abnormal cardiac, respiratory and sleep patterns may increase the risk of apnea (breathing interruptions). Prolonged apnea may underlie many SIDS events. There is also specualtion about the role of allergic factors in producing an anaphylactic shock reaction.

Child Abuse and Neglect. Child abuse and/or neglect result from parental psychological problems and stress. Abuse occurs when that infant's health or welfare is harmed through non-accidental physical or mental injury or maltreatment. Infant neglect occurs when the person responsible for the infant's health and welfare fails to provide adequate food, clothing, shelter, medical care or protection from physical dangers.

About 15 percent of the total child abuse cases investigated by the Michigan Department of Social Services Protective Services from October 1979 through September 1980 were of infants one year or under, 4,256 cases of the total 28,308 cases. The diagnosis of child abuse and neglect is not difficult when injuries sustained require hospitalization. The challenge is to recognize potential problems so that early treatment or preventive programs can be effective.

Analysis of U.S. and Michigan Infant Mortality Trends

With the Michigan reported population increase in infant mortality in 1981, a great deal of attention and interest was focused on United States and various state infant mortality trends. Most public health scientists have come to rely on the National Center for Health Statistics for timely and appropriate mortality data. The National Center has a long and distinguished track record. Thus, Michigan officials were distressed when the National Center began releasing false and misleading provisional infant mortality statistics to the New York Times and other newspapers around the country.[33] This was done in spite of the fact that Michigan had published final infant mortality rates for two of the three years between 1980 and 1982. That result was to sharply underestimate infant mortality rates in Michigan and to downplay the extent of the problem. This can be seen in Table 5.

Table 5

Comparison of Infant Mortality Rates Released
by the Federal Government and Actual Michigan
Final Rates

	Federal	Michigan Final
1980	12.5Pr	12.8
1981	13.0Pr	13.2
1982	11.7Pr	12.1

The overall difference in provisionally shaving 0.2 to 0.4 infant deaths per one thousand livebirths over the three year period amounts to a portrayal of Michigan having 118 fewer infant deaths than it actually sustained. It also presents quite a different picture when mortality trends are being examined as we shall see in the ensuing analysis.

The Brandt Report concluded with this statement:

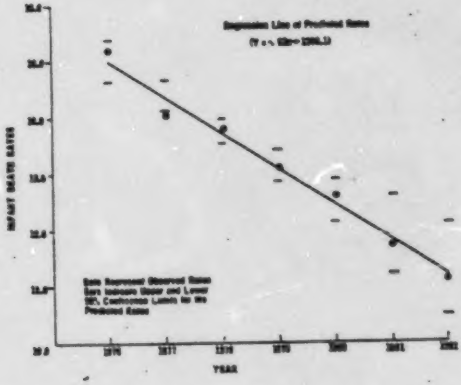
> "I am pleased to report that there is no evidence that the rate of decline in infant mortality has abated either nationally or in any state."[34]

Let us examine this statement with reference to the Michigan problem.

In order to determine whether infant mortality rates for the years 1981 and 1982 in Michigan deviated significantly from previous trends, least squares regression lines were fitted to 1976 - 1980 infant mortality rates for Michigan and the United States as a whole. Time (years) was the independent variable and infant mortality rate (rate per 1,000 livebirths) was the dependent variable. The results of these regressions based on the 5-year data were used to predict rates for 1981 and 1982. The observed rates for these years were then compared to the predicted rates in order to determine whether a significant departure from the previous 5-year trend took place. It should be noted that the observed rates for the years 1981 and 1982 for the United States are provisional rates.

Because the actual regression equation was derived using only 1976 through 1980 observed rates, the upper and lower confidence limits on the regression lines for 1976 through 1982 data were calculated in separate ways for the intervals from 1976 through 1980 and 1981 through 1982. The confidence limits for the regression lines from 1976 through 1980 are based on the estimated standard deviation of the observed values, whereas the confidence limits for 1981 and 1982 are based on the estimated standard deviation of the predicted new values. Confidence limits based on the estimated standard deviation of predicted new values give rise to wider intervals than limits based on the estimated standard deviation of observed values, other factors remaining the same. The limits presented in Figures 1 and 2 are 90% confidence limits.

Observed and Predicted[1] Infant Death Rates
For the United States, 1976-1982



[1] [illegible]

Figure 1

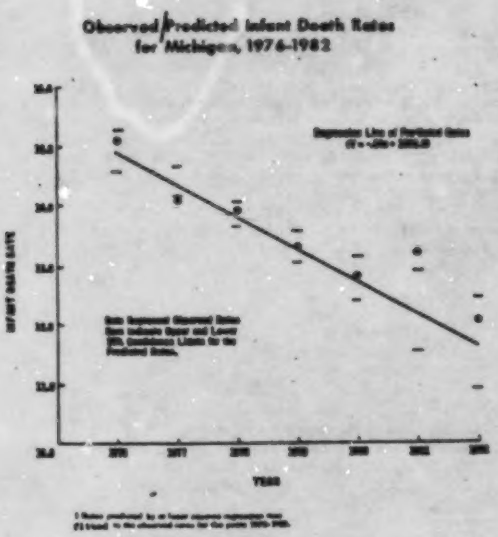


Figure 2

Reviewing the results of analysis in Figures 1 and 2 reveals that the observed infant mortality rates for 1977 for both Michigan and the United States as a whole are significantly lower than the predicted value of the regression line. For the Michigan rates, however, the observed 1981 infant mortality rate exceeds the upper confidence limit, and is therefore significantly greater than the regression line predicted value ($p < .025$). The observed Michigan rate for 1982 is not significantly different from the regression line predicted rate ($p > .1$). The observed rates for the United States for 1981 and 1982 are both within the 90% confidence limits for the regression line and are slightly lower than the predicted values. The 1981 rate for Michigan, then, does depart significantly from the trend determined by least squares regression for the previous five-year period in Michigan.

The previous description is based on the assumption that the yearly infant mortality rates are true population values that do not vary. Instead, it is the regression line (regression of infant mortality rates on years) which is variable. Slightly different results are obtained if we assume that rates vary as a Poisson variable and the regression of infant mortality rates on years is a true population parameter. Standardized Mortality Ratios (SMR's) may then be constructed for each year by determining the number of expected infant deaths from the regression predicted rates and the observed number of live births for each year. (The number of expected infant deaths will equal the predicted rate times the observed number of live births ÷ 1000.) The Standardized Mortality Ratio will then be the ratio of observed infant deaths to expected infant deaths. For Michigan, the SMR's for 1981 and 1982 are 1.077 and 1.038, respectively (see Table 6). (That is: 1,851/1,718 and 1,672/1,611.)

Table 6

Observed and Predicted¹ Infant Death Rates for Michigan and the United States, 1981 and 1982

AREA	YEAR	OBSERVED			PREDICTED		
		INFANT DEATHS	LIVE BIRTHS	INFANT DEATH RATE	INFANT DEATH RATE	EXPECTED INFANT DEATHS²	RATIO OF OBSERVED/EXPECTED INFANT DEATHS
Michigan	1981 1982	1,851 1,672	140,579 137,950	13.2 12.1	12.220 11.680	1,718 1,611	1.077** 1.038
U.S.	1981 1982	42,700Pr 41,700Pr	3,646,000Pr 3,704,000Pr	11.7Pr. 11.2Pr.	11.900 11.280	43,387 41,791	0.984* 0.998

*Sig. (P) = .05
**Sig. (P) = .01

¹Rates for each area predicted by a least squares regression line fitted to the area's observed rates for the years 1976-1980.

²Expected infant deaths = (Predicted infant death rate x Observed live births) / 1,000

Note: The statistical tests were done using a procedure outlined by John C. Bailar in an article in the September 1964 issue of Biometrics entitled "Significance Factors for the Ratio of a Poisson Variable to its Expectation".

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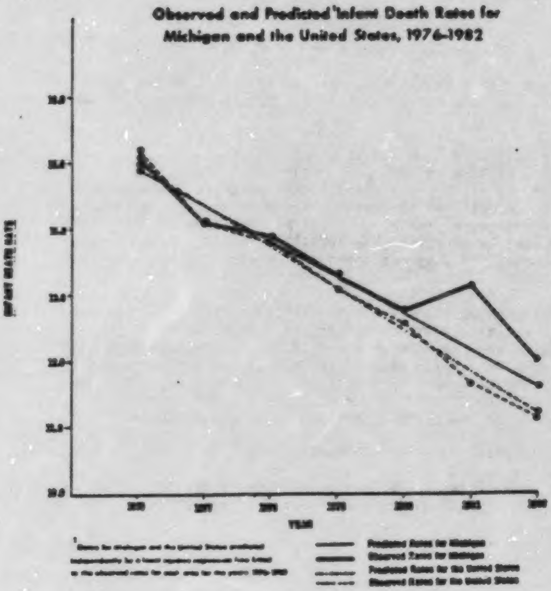
For the U.S., the SMR's for 1981 and 1982 are 0.984 and 0.998, respectively. (That is: 42,700/43,387 and 41,700/41,781). If a two-sided statistical test for the ratio of an observed value of a Poisson variable to its expected value is used, the observed number of infant deaths in Michigan for 1981 is significantly greater than expected ($p < .01$) and the observed number of deaths in the U.S. for 1981 is significantly less than expected ($p < .01$). No significant differences are seen in either the U.S. or Michigan's 1982 performance, although Michigan at 12.1 remained above its predicted 1982 value for infant mortality of 11.7.

The interplay of both the U.S. and Michigan 1976 through 1982 infant mortality experience can be seen "whole" by viewing figure 3. Once again, it is interesting to note that the slope of the Michigan regression line is less steep than that for the United States as a whole. Both regression lines are "good fits" on the 1976 to 1980 data points with R=.98 for the U.S. line and R=.98 for the Michigan line.

Figure 3



Observed and Predicted[1] Infant Death Rates for Michigan and the United States, 1976-1982

The differences in the slopes of the two lines is suggestive that Michigan may be departing from its traditional place as a median state in terms of infant mortality. Even if it returns in 1983 to sit directly on its own trend line, this will represent a widening adverse gap with the average national experience. In 1981, Michigan had a thirteen percent higher infant mortality rate than the U.S. In 1982 this narrowed to an eight percent differential.

What is the cost in human terms? When Michigan moved away from its downtrend of 1976 to 1980, it experienced excess infant deaths that are projected in Table 7.

Table 7

Projected Excess Infant Deaths in Michigan - 1981-1982

Year	Observed	Predicted	Excess Deaths
1981	1851	1718	133
1982	1672	1611	61
Total	3523	3329	194

Excess Deaths = Observed infant deaths minus predicted infant deaths based on the least squares regression line fitted to Michigan's observed rates for the years 1976-1980.

Michigan experienced a projected combined total of 194 excess infant deaths over the two year period of 1981 to 1982. If projections are run using observed Michigan deaths versus U.S. observed infant mortality rates, then Michigan experienced 333 excess infant deaths. For Michigan to obtain the same level of infant mortality as the U.S. is not an unreasonable goal since Michigan performed at that level during the 1976-1979 period. Based on the foregoing analysis, however, it does not appear to be attainable in the near term.

The infant mortality problem,as pointed out in earlier sections of this report, disproportionately and negatively affect vulnerable subpopulations. The poor, the black, the unemployed and the uninsured are those who bear the brunt of the infant mortality problem. For a state like Michigan with a large number of births (133,000 to 135,000 per year) to have a population increase in infant mortality requires that these identified subpopulations experience dramatic increases in their rates of low birth weight and resultant infant mortality.

Detroit, for example, is mired in infant mortality rates of 21 to 22 deaths per 1,000 live births, rates not seen in the U.S. "as a population" since the 1960's. Black infant death rates in Detroit have risen in the last four successive years. Clearly infant death rates for black populations which are fifteen to twenty years behind white infant death rates are unacceptable in an enlightened and compassionate society like ours. High infant mortality rates in these subpopulations, especially among the black population, cannot be dismissed as they have been as a somewhat unfortunate "historical" fact.[35]

Summary

Infant mortality rates in the United States compare quite unfavorably with other developed countries around the world. The infant death rate has generally declined steadily in Michigan and throughout the nation since the turn of the century. During the last 30 years alone the infant death rate has declined by almost 50 percent. These improvements have been made largely possible because of better nutrition, housing and improved health care. Despite this progress, this first year of life remains the most hazardous period until age 65. Additionally, not all groups have shared equally in this progress. Sharp differences persist in both infant death rates and the use of health services according to family income, ethnic background, parental education and geographic location.

While Michigan's decline in infant mortality has closely paralleled the nation's experience, at least up until 1981, there is a great deal of uncertainty as to whether Michigan will return to its previous status as a median state in terms of infant mortality. The reason for this concern is underscored by consistently higher unemployment levels than experienced by the rest of the United States and the large numbers of newborns currently estimated to be 25 percent, who are born directly into poverty.

Generally speaking, two-thirds of all infant deaths are related to the problem of the low birth weight infant. Unfortunately, most recent progress in reduction of infant death appears to have come by improved survival rates for low birth weight infants. This is generally thought to be a result of high cost and high technology perinatal intensive care programs.

If the birth weight specific infant death rates in Michigan had not changed from the 1970 levels, as Table 8 below shows, the infant death rate for infants born in Michigan in 1979 would have been about 17.9 deaths per 1,000 live births. The actual rate of 13.0 in 1979 represents a decline of about 27 percent from the 1970 levels due to reductions in birth weight - specific mortality rates. Approximately 90 percent of the improvement in the infant death rate between 1970 and 1979 can be attributed to reductions in these birth weight - specific mortality rates, and only a 10 percent reduction to favorable changes in the birth weight distribution itself.

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This phenomenon has been observed by other authors who have come to similar conclusions.[36] These health scientists have reported that the United States does just as well as other countries when standardized birth weight distributions are used. Their conclusions indicate that the United States has relied on expensive high technology newborn intensive care to bring down its infant mortality rate. Additionally, they state categorically that the disproportionate percentage of low birth weight births in the United States accounts for our relatively poor ranking with other developing nations.

The factors underlying low birth weight include unemployment and poverty, poor maternal and infant nutrition, unintended pregnancy, lack of prenatal care and maternal substance abuse.

Dr. Myron Wegman, Dean emeritus of the School of Public Health at the University of Michigan, has asked the question of whether or not excess attention is being paid to the absolute value of infant mortality rates, "thus stimulating competition to achieve lower numbers for their own sake."[37] He points out that one major concern is that such a competition might lead to continuing disproportion expenditures for high technology perinatal intensive care. As the ensuing sections will point out, there is reason to believe it would be better to put more policy emphasis on low cost preventive health care strategies of demonstrated effectiveness. Such a policy, in the opinion of Dr. Wegman, would put our national health priorities in better perspective.

IMPACT OF UNEMPLOYMENT AND FEDERAL BUDGET CUTS

Unemployment and Budget Cuts

Michigan has experienced over four years of double digit unemployment. This problem which began in 1980 resulted from a combination of factors including a restructuring of the automobile industry and a national recession which had a heavy impact on the highly industrialized manufacturing states in the Midwest, East and some portions of the South.

Unemployment rates peaked in Michigan at 17.8 with over 750,000 workers off the job. Present unemployment rates continue to lead the nation and for February 1984, are listed at 12.8 with 535,000 people out of work. These numbers of unemployed workers are higher than the number of citizens living in major cities and even some states around the nation.

Once the economic decline started, the tax base in the state continued to shrink while increasing demands were made for every aspect of public health and social service functions. Compounding the problems of high unemployment and restructuring within the automobile industry were the high cost of energy, interest rates (rapidly increasing at a time when the state was borrowing significantly to meet its costs) and tax dollar outflows. Unfortunately, Michigan continues to be one of the states receiving the lowest percentage of tax dollar return from Washington. Factors noted by public policy makers in Michigan for this latter disparity include changes in federal matching formulas and other categorical funding distribution formulas, the lack of military bases and defense contractors in the state and the "New Federalism" which meant significant reductions in many human service programs.

The Michigan Department of Public Health during the sixteen month period from beginning of FY 1982 to January 1983, recorded a total drop of $24.2 million in combined federal, state and other revenue. Maternal and Child Health Programs in the state health department recorded a $6.7 million loss during the same time period. Thus, while the numbers of persons eligible for and participating in publicly supported health and social services programs were increasing, the programs themselves were being reduced in size and scope.

The following illustrates some specific examples of the impact of those declining revenues during the 16-month period for Maternal and Child Health.

- Maternity and infant care projects in Wayne County were reduced severely. Three clinics were closed, terminating services for 600 women and almost 11,000 children.
- Crippled Children's Programs were experiencing significant increases in caseload at a time when funding was level....case management services to clients were reduced.
- Improved pregnancy outcome program which in Michigan was aimed at reducing infant mortality and other problems for pregnant teenagers was completely terminated in all four program locations by the federal government.

- Family Planning. Federal Family Planning expenditures under the Title X Program were reduced in the Midwest by nearly 30 percent while other areas of the country were virtually unscathed. This resulted in over a million dollar funding cut to family planning projects that reduced services by some 21,500 patients. Family Planning staff believe this could result in nearly 9,700 unintended pregnancies.

In January 1983, Michigan elected a new Governor, James Blanchard. From the time he took office, Governor Blanchard moved forcefully to get Michigan moving again.

The first major hurdle to overcome was the state's solvency. Governor Blanchard together with legislative leadership announced a combined program of budget cuts and state employee reductions together with a general state tax increase. The plan passed and it has worked. Today Michigan is reaping the benefits of a balanced budget and has found new confidence on Wall Street as debts incurred in the early phases of the recession are now being paid at an accelerated rate.

Governor Blanchard has also generated a constant and steady stream of economic development initiatives in a massive 20 point economic program which should move Michigan to a more diversified economy. These initiatives include worker retraining programs, a high technology consortium between industry and major state universities, export initiative for Michigan farm and industrial products, promotion of recreational and natural resource opportunities and assistance for Michigan business to obtain a greater share of federal procurement contracts.

Today, Michigan is on the move and to characterize the Michigan of February 1984 as "empty smokestacks" and "breadlines of citizens" would be incorrect. The auto industry after retooling its plants and introducing many new technologies is showing record breaking profits. This is a remarkable feat in the face of the previous three and one-half year U.S. sales slump. It is particularly impressive when one realizes that the number of units sold has not yet approached previous record highs of the late 1970's.

Of course, many problems remain. Persistent and double digit unemployment continues to place heavy burdens on the public service system.

Average Unemployment Rates for Selected Michigan Cities, 1983

Detroit	18.7
Pontiac	26.3
Flint	21.8
Saginaw	19.4

Unmet Needs for Michigan's Mothers and Children

The Crippled Children's Program is one of the many programs serving mothers and children in Michigan. During the recent years of recession, the number served in this program rose from 12,800 in FY 1980 to 14,000 in FY 1983. Program officials also realize that there are many children with unmet needs who are unable to be reached at this time. Concern has also surfaced regarding the increased costs of providing expensive medical care and treatment services for severe crippling conditions. Medical care cost inflation exacerbates the many problems of the increasing caseload.

The Maternal and Child Health Program also includes the supplemental security income/disabled children's program. A variety of case management services are provided to individual multiply disabled children. We know from our experience over the past few years that such case management services improve the effectiveness and efficiency of medical care and treatment yet the SSI program is only serving children from birth to seven years of age while potentially those up to 16 years of age are eligible. We are also having difficulty in Michigan expanding services from the 35 existing counties to all 83 counties.

During the past several years, local health departments have also noticed a growing need for services that are required for dependent populations such as older Americans, mothers and children. In a recent survey conducted by the Department of Public Health focusing on service needs and family planning, the supplemental food program for pregnant and lactating women, infants and children, maternity, infant and child health care clinics and the early and periodic screening, diagnosis and treatment program found a series of problems.

There were significant increases in program demand throughout Michigan and most of this increase seems to have come from the "new poor" or persons who have assets but no cash due to recent unemployment. Ten of the fourteen local health departments surveyed mentioned that they were seeing significant numbers of new poor clients. Increased waiting times up to three months in some cases were also mentioned by local health authorities signaling a potentially dangerous problem depending upon the service provided. They were especially worried about the lack of ability to provide early prenatal care or to get pregnant women on to the WIC program early in the first trimester.

The Jobs Bill which passed the Congress in the Spring of 1983 gave Michigan a badly needed infusion of roughly $11 million in new health care financing. These funds were nearly evenly divided between maternal and child health, WIC supplemental foods and the community health centers. These funds were immediately programmed using priorities of pregnant women and infants aimed at reducing high infant death rates statewide. All programs began to operate in the Summer of 1983. Badly needed prenatal, infant care, school health, family planning and accident prevention programs have been put into place. Naturally, local health departments are extremely concerned that these new and important initiatives may be completely curtailed in September 1984. Obviously, the problem continues for Michigan and for many other areas of the United States.

Summary

How can unemployment increase infant mortality? This question was addressed by the amminent Michigan researcher, Dr. Marilyn L. Poland in an intensive review of unemployment, stress and infant mortality in Detroit.[38] Her paper described stress at various levels of government, it also examined stress levels within family, to determine the process by which econmic instability could effect infant mortality. While firm conclusions are elusive, Dr. Poland cited many associated factors which appear persuasive in light of other studies.

Brenner of Johns Hopkins University prepared perhaps the "classic paper" on the relationship between fetal infant and maternal mortality during periods of economic instability.[39] He concluded:

> The results . . . indicate that significant changes in the trends in perinatal, neonatal and post neonatal and maternal mortality occur regularly in the United States as a result of environmental change associated with economic fluctuations. The evidence indicates that economic recessions and upswings have played a significant role in fetal, infant, and maternal mortality in the last 45 years. In fact, economic instability has probably been responsible for the apparent lack of continuity in the decline of infant mortality rates since 1950.

Studies by Arden Miller indicate that health status in the United States is closely linked as previously pointed out to socio-economic status.[40] Dr. Miller has concluded that perhaps because of "the nation's relatively weak commitment to assuring participation of all people in essential and appropriate health services" that these socio-economic status differences continue to undergird differential health status between economic groups.[41] He concludes:

> (Data are now available) . . to lead responsible policy makers to the inescapable conclusion that the health of children, pregnant women and poor families is suffering and in great jeopardy. These adverse effects must be attributed to a combination of circumstances that include serious recession, increased poverty rates for households with children and diminished health benefits and social support services. In a time of local or widespread economic reversals, health services need to be expanded rather than contracted.

EFFECTIVE INTERVENTION STRATEGIES

Infants are profoundly dependent on others for their well-being. Strategies for infants health have been developed over the last several decades in recognition of the fact that some of the most effective services relate to women of reproductive age and their children. The term "maternal and infant health" or "maternal and child health" has come to describe this constellation of services.

These services have as their basis two important tenets:

- Improvement of the health of mothers and children leads to better health for the entire population. Mothers and children constitute a highly strategic group; they are especially vulnerable to hazards and attendant problems of reproduction, growth and development, and at the same time are the segment of the population which is most responsive to health care.
- The health of mothers and children is closely related to the general health of the community and to the social, economic and cultural background of the country as a whole. Measures which improve the general public health will benefit mothers and children.[42]

The greatest growth in health care costs have come from the entitlement programs, such as Medicaid. Cost effective programs which emphasize prevention and earmark funds to the most needy probably should not be cut since these programs have been able to provide services to increased numbers of persons and streamline costs during a period of high inflation. This is particularly true in periods of high unemployment and economic distress since the health of mothers and children is often the first to suffer.

Maternal and Child Health Programs are cost effective:

- A federal GAO report published on February 27, 1979, indicated that for each $1 spent on WIC there is a savings of $3 which sould have been spent caring for a low birth weight infant and for each $150 million spent on WIC $260 million is saved in federal expenditures for Medicaid, Supplemental Security Income and special education.[43]
- The Center for Disease Control in Atlanta showed that children enrolled in WIC had considerable improvement in blood hematocrit values (reduction in anemia). An Arizona study recorded an 81 percent reduction in anemia, 82 percent reduction in underweight infants and 64 percent improvement in children's height.[44]
- A national study conducted by the Alan Guttmacher Institute demonstrated a benefit/cost ratio of $1.80 for every federal dollar invested in family planning.[45]
- Medicaid children participating in the EPSDT program have achieved immunization levels of 82 percent in comparison to the state average of 68.6 percent for all Michigan children. Every dollar spent on immunization saves an estimated $8.00 in treatment costs.

Medicaid children participating in rescreening after two years in the EPSDT Program had an 8 percent reduction in problems needing referrals. One percent of the children participating in EPSDT screening were referred for diagnosis and treatment of excessive blood lead levels. Left untreated, lead poisoning can result in a wide spectrum of morbidity,[46] including behavioral problems, mental retardation and in death.

- Maternity and infant care projects (MIC) in Michigan have contributed to a decline in maternal and infant mortality. A study completed in 1979 showed that women who had delivered their last pregnancy outside the Michigan MIC projects suffered a perinatal mortality rate of 1113 per 1,000 live births. Delivery within the project reduced this rate 26 per 1,000.[47]

- Government studies show that for every $1 spent on prenatal care, $4 to $6 are saved in neonatal intensive care (NICU) and re-hospitalization for low birthweight infants during the first year of life.[48]

The literature is extensive on the effectiveness of maternal and child health programs. Excellent review articles are found in several books and reports.[49] While this literature is much too extensive to review here, the Forward Health Plan for 1979 through 1981 published seven years ago by the U.S. Department of Health, Education and Welfare, succinctly summarized both the state of the art and the need for action by health authorities.

> There is strong evidence of a positive correlation between the receipt of maternal health care services and the reduction of infant mortality. There is further indication that health services play a particularly important role in infant mortality reduction in the neonatal period (0 to 28 days) when three-fourths of all infant deaths occur. The non-medical factors appear to have an effect more on the post neonatal period (29 days to one year).[50]

The U. S. Government officials also strongly emphasize the need to:

> . . . target resources for the prevention of infant mortality to those areas of greatest need. Areas would be selected based on a number of indices including rates of infant mortality and low birth weight infants. Seed money would be awarded to sites to facilitate the process of targeting resources on the problem of infant mortality.[51]

Michigan Department of Public Health in its publication Health Promotion and Disease Control: Report of the Harrison Committee identified three key strategies for the improvement of infant health. They include family planning, pregnancy and infant care, and environmental hazard control.[52]

Family Planning

Comprehensive family planning services represent an effective means of dealing with the health, social and economic problems associated at least in part with the occurrence of unwanted and mistimed pregnancies. Services available to each family planning client should include:

- Physical Examination
- Contraceptive Supplies
- Venereal Disease Counseling
- Education and Information
- Contraceptive Counseling
- Treatment or referral for social problems
- Pregnancy Testing
- Sickle Cell Testing
- Infertility Studies
- Sterilization
- Nutrition Counseling
- Laboratory

Several disease prevention and health promotion measures have been identified in the area of family planning. They are made up of a variety of educational, informational and service delivery activities.

The Harrison Committee strongly recommended that a family life curriculum be incorporated into Michigan school programs. Topics such as human sexuality, reproduction, contraception, peer pressure, values clarification and decision making should be introducted. A new Michigan Law P.A. 226 of 1977 offered Michigan school systems an opportunity to make such curriculum additions with the assistance of a parent-community council.

A second needed activity is informing citizens about the availability of prescription and non-prescription contraceptives, their effectiveness, availability and cost. Assistance is also needed for parents wishing to have materials available to provide "natural" family planning methods which require periodic abstinence.

Another education effort is that of upgrading the knowledge of family planning clinicians regarding the relative risks and effectiveness of all family planning methods.

Finally, it is recommended that family planning services need be made available in all areas of the state. These services should be offered to sexually active males as well as females on a voluntary basis. Finally, there should be efforts made to include family planning as a routine part of the hospital postpartum and private physician care for women. If a woman is breastfeeding, preference should be given to contraceptive methods which do not interfere with normal lactation.

Pregnancy and Infant Care

The provision of high quality prenatal, obstetrical and neonatal care, and preventive services during the first year of life can reduce a newborn's risk of illness and death. An important starting point is the thorough assessment of special risk because of family history or current medical problems; confirmation of the pregnancy by physical examination and laboratory tests; amniocentesis and genetic counseling where indicated; and counseling on nutrition, smoking, alcohol use, exercise and sexual activity.

Many risks can be detected and intervention begun to reduce or eliminate problems for the mother and child. For example, prenatal diagnosis can lead to successful in utero interventions for such conditions as erythroblastosis and hydrops, galactosemia, methymalonicacidemia (vitamin B_{12} responsive), multiple carboxylase deficiency (biotin responsive) and congenital hypothyroidism (See Appendix A).

The American College of Obstetricians and Gynecologists recommends a routine schedule of prenatal care visits: every 4 weeks until the 28th week of gestation; then every 2 weeks until the 36th week; and thereafter every week until delivery. While this may assist in attending to the physical aspects of pregnancy, one should not overlook the social, emotional and education needs of the parents or other caregivers.

Access to high risk hospital care is available in Michigan through a program of regional perinatal centers. Again, good maternal, fetal and neonatal risk assessment, communication and referral, if necessary, can improve the outcome of pregnancy. Family-centered maternity care and birthing alternatives in the hospital setting, combined with recent technological advance such as electronic fetal monitoring of the fetus or total life support for the neonates, enhance the birth process and outcome.

Once the infant is born, screening for phenylketonuria (PKU), congenital hypothyroidism and galactosemia should be done. Prevention of Rh (rhesus) sensitization is another major advance which began in 1968 with the introduction of Rh immune globulin. The postpartum availability of family planning allows the parents to choose the spacing of the next child or to end childbearing by electing sterilization.

Health services for newborns in hospitals include: evaluation of the newborn immediately after delivery; complete physical examination before discharge; prevention measures such as gonococcal eye infection prophylaxis and administration of vitamin K; nutrition assessment and intervention if necessary; bonding and attachment activities and arrangement for pediatric care following discharge.

During the first year of life there should be periodic health assessments, initiation of immunization, counseling and anticipatory guidance, as needed, and instruction on the use of community resources for children and families.

Environmental Hazard Control

As more is learned about congenital anomalies and malignant neoplasms, it will not be surprising if more and more environmental pollutants are found to affect the genetic material of parents. There are many chemicals, drugs and preventable diseases which are known offenders.[52]

Two important lessons that can be learned from the nation's history of attempts to improve the public health in this area are:

- It is not necessary to completely understand all the causes of a particular type of damage before action is taken to reduce its harmful effects.
- Attempts at amelioration may also have negative consequences. It is as important to study the effects of corrective strategies as it is to study the illness or injury itself.

The means forreducing environmental hazards for infants could be summarized in the following ways:

- Prevent the creation of the hazard in the first place
  - clean water supplies
  - do not use flammable materials in dwellings and infant institutions
- Reduce the amount of hazard brought into being
  - reduce top speed capability of motor vehicles
  - reduce water temperature to below scalding levels
  - reduce amount of lead being introduced into the environment.
- Prevent the release of the hazard that already exists
  - protect hospitalized infants from infections by proper isolation, filter and control procedures
  - impound nuclear and chemical waste.

Summary

Even the most casual reader will note that the above discussion on effective intervention strategies did not cover regional perinatal care. As was pointed out in earlier sections of the report, this strategy has probably been responsible for the large majority of infant death reductions during the 1970's. Many health writers including this one believe that we may have exhausted most of the potential benefits of applying high technology care to mothers and newborns. There is a growing consensus that further reductions to infant mortality in the 1980's will require much more attention to preventive programs designed especially at reducing the incidence of low birth weight.

A second reason for not emphasizing the perinatal care option has to do with its cost. While these costs very substantially from state to state, in Michigan we are paying approximately $1,000 per day for an infant in a newborn intensive care unit. The sickest infants may stay in these units for three to six months however, the average length of stay is 17 to 27 days. Typically, when one averages the acute and intermediate care patient cost for neonatal intensive care, they range from $10,000 to $15,000. These costs are in sharp contrast with the low per patient output for such programs as:

- Infant screening diagnosis and referral - $40.00 per visit.
- Family Planning - $75.00 per patient per year.
- WIC supplemental foods - $30.00 per client per month.
- Comprehensive prenatal care - $350 per pregnancy.

In one sense society can "pay now or pay later". We have a choice of paying the lower cost of preventive health care, assuring its widespread availability among all population groups regardless of geography, latitudinal or legal barriers or paying higher rates for disease teritary medical care, death or institutional maintenance of severely damaged children.

Unquestionably the United States, like all nations, has a selfish interest in seeing its society perpetuated. The U.S. is entering a critical period in its history and nowhere is that period and its paradoxes more evident than in Michigan. We are entering the information age and can expect that the United States will become an information and service based society. Thus, as today's children grow into adulthood, they will have to perform increasingly complex tasks in an age of technological change. This will be necessary if we are to keep our economy competitive with those of other nations. Accordingly, we must consider each of our children as a valuable national resource.

Programs such as Maternal and Child Health not only improve the health and enhance the lives of our children immediately, but also expand their potential for significant and long term contributions to our national economic and social life. A society which neglects its children certainly runs very grave risks in terms of its eventual disorganization and potential for internal conflict and discord.

If the United States over a long period of time sees from one-fourth to one-fifth of its children born into and living in poverty, it is highly unlikely that these same citizens can be assured of reappearing as adults with good health, high academic proficiency and well prepared to participate in the marketplace. It may be instructive for the United States to review the health care policies of other industrialized nations, especially the Western European countries and Japan as they apply to children. Many of these countries tend to engage in long term planning activities by a simple virtue of their long centuries of nationhood. The United States is a relatively young nation founded on fundamentally different social and economic principles and has not always felt comfortable in engaging in long term planning. Perhaps if the question were reframed in terms of "who will pay the nation's social security bill in 2020" there might be sufficient interest to address the problem of low birth weight, infant mortality and even the more forbidding prospect of infant morbidity which leads to the inability of our children to reach their maximum social and genetic potential.

Sufficient evidence going back to the 1920's and the early studies of the Sheppard-Towner Maternity and Infancy Act demonstrate that maternal and child health prevention programs are both low cost and effective. This was again demonstrated in the 1940's by the widely acclaimed and successful emergency maternity and infant care program which assured prenatal care, labor and delivery and infant services to the wives of servicemen.[53] Unfortunately, this program dissolved at the end of the war although it had demonstrated great reductions in infant mortality primarily due to better prenatal care and infection control procedures in hospital nurseries. Other demonstrations were conducted during the 1960's with the Maternity and Infant Care and Children and Youth Projects and the literature continues into the present.

Therefore, in the judgement of public health officials it is not scientific evidence or scientific procedures which need to be demonstrated. Ample and sufficient evidence exists going back into the 1920's for the preventive health approach. What is required, is a change in attitude on the part of policy makers at all levels to give priority to children's issues and to see that such a priority is warranted in terms of the long term interest of perpetuating the American nation state.

In conclusion, further study of these issues is not needed. The commitment must be found to put known and demonstrably effective solutions into place throughout the United States.

THE ROLE OF FEDERAL, STATE AND LOCAL GOVERNMENT

Health promotion and disease prevention programs for mothers and children have been organized principally in response to national or federal governmental leadership since the creation of the original United States Children's Bureau in 1912. During that time period a succession of federal government initiatives have led the way for progress in maternal and child health services.

The major charge given in the legislation creating the Children's Bureau in 1912 was:

> To investigate and report on the conditions affecting the health and welfare of America's children.

At that time, governmental officials in health and education were apparently quite uninterested in taking on this new responsibility for children. As a result President Taft placed the Children's Bureau in the Department of Labor as the Labor Secretary indicated that they were certainly interested in the welfare of the children of American laborers.

Dr. Helen Wallace and Dr. Antonio Medena in the Second Edition of Maternal and Child Health Practices detail a comprehensive view of the organizations, functions and responsiblity of federal, state and local maternal and child health governmental agencies.[54] This is an excellent review and should be read by anyone with a serious interest in defining the governmental mission and role among the different levels of government. Dr. Wallace, the Dean of Maternal and Child Health professionals in the nation, was an active participant in much of the legislative history and programmatic operations of maternal and child health. She is still active as the Director of the MCH Program at San Diego State University.

Federal Government Responsibilities

The Federal Government has many important responsibilities to carry out in order to assure the health of the next generation of Americans. These include the establishing of health goals and obtaining a national consensus on these goals, setting standards of health care, financing, demonstrating new and effective interventions, monitoring conditions affecting children and training.

Setting National Health Goals. It is essential that the United States set and the American people achieve a consensus on health goals for children. Establishing national health goals has been the driving force behind the many White House conferences on children which have been held in the United States going back into the early 1900's. Perhaps the most recent expression of these goals occurred during the mid-1970's with the publication of the Healthy People campaign and the publication of the landmark book by the U. S. Department of Health and Human Services entitled, Promoting Health and Preventing Disease: Objectives for the Nation.[55]

While this publication set health objectives for all age groups, it concentrated especially on preventive health services, health protection activities and health promotion. Maternal and child health goals played a principal role because of their known and proven preventive aspect. Thus, objectives were set in the area of family planning, pregnancy and infant health, including infant mortality, low birth weight, prenatal care and similar areas.

The most important result of goal setting is to give professionals and citizens alike the opportunity to focus time, energy and attention on achieving these goals. This is the same principle that was used in the space program when the goal was set by President Kennedy of putting a man on the moon and returning him safely prior to the end of the 1960's. In the area of infant mortality, the Surgeon General set the goal of reducing infant mortality to no more than nine deaths per 1,000 for the population as a whole and to not greater than 12 deaths per 1,000 for any racial, ethnic or geographic group.[55] Goal setting energizes the system and sets the pattern for expenditure of resources.

Standards of Health Care. Perhaps one of the most longstanding contributions of maternal and child health and crippled children services in the United States has been the ability to articulate health care standards which are consistent with published professional standards and also practical for implementation in the community setting. Such standards have led to the improvement of health care for all Americans. One example was standard setting activity for crippled children's services and emergency maternity and infancy services during and following World War II. These standards were at least in part responsible for infection control procedures being established in newborn nursery units through the use of the cohort system and the elimination of dual standards of care between the races.

Financing. The President's Commission recently reported in March 1983 that the Federal Government by virtue of its enormous revenue producing power and its ethical responsibilities must assume the ultimate responsibility for seeing that health care is available to all when the market, private charity and governmental efforts at the state and local level are insufficient to achieve health care equity.[56]

Unquestionably the long recession of the last three years found many state and local governments unable to cope with the increasing need of the unemployed, the working poor, as well as its old responsibilities to those living below the poverty line.

States such as Michigan which were having serious difficulties in financing all government services were thus especially hard hit when the Federal Government began to withdraw financial assistance from a broad range of health and human service programs. It is difficult, if not impossible, for the states and localities to assume the full burden of responsibility if adequate financing does not continue from the Federal Government level.

In Michigan, more than 90 percent of all MCH expenditures at the State Public Health level come from federal sources of financing. Thus, if the Federal Government withdraws from this responsibility, it is clear that mothers and children in many areas of the United States will be denied access to health care. In fact, this has occurred and has been well documented in many reports issued by the Maternal and Child Health Clearinghouse in Iowa.

Michigan has also documented the problem recently in the area of prenatal care. In a comprehensive survey of recently delivered maternity patients, it was determined that 9,500 low income women went through their pregnancy without any form of health insurance or Medicaid.[57] At this point, the State of Michigan is unable to allocate the necessary funding to fill this entire need.

Thus, it is essential that the Federal Government develop a partnership with states like Michigan who are willing to invest state general fund dollars on an increasing basis over a three year period. Unfortunately, the new federalism did not give any period of time for states to adjust to these conditions and it was implemented at a time when revenues were being reduced substantially by the recession.

Clearly the Federal Government should utilize judgment in selecting those interventions and in targeting financing at those areas of the country where maximum impact can be expected from the expenditure of those dollars. Federal funding formulas which discriminate against the Midwest and states like Michigan are most unfortunate when one takes into account that much of the human and health care needs of these populations is much worse than in other areas of the country. Public health authorities everywhere have recognized that there are limitations as to the extent that government at all levels will or can become involved in financing. Therefore, targeting of existing and scarce resources has been a feature of public health programming efforts since the 1920's.

Innovation. The Maternal and Child Health Program continues to do an excellent job with the federal set-aside program under the MCH Block Grant to work on innovative projects of regional or national significance. These innovations should continue and be focused on developing new approaches to longstanding problems including service models of demonstrated effectiveness. Care should also be given to assure that there is a reasonable balance between biomedical and other educational and social strategies of intervention. There should also be some balance across the country in funding these projects.

No where did this become more clearly evident than the threatened cutoff of innovation funding for Michigan's regional amputee center located in Grand Rapids. This project received word in June of 1983 that its annual $247,000 grant would be discontinued. Similar messages went out to centers in New York and Los Angeles. The amputee centers provide medical assistance, artificial limbs and training for children who have multiple handicaps. Indeed, this is an expensive proposition for growing youngsters and one far beyond the financial reach of most Americans.

The Grand Rapids Center has aided about 1700 children, a third of whom have been from other states in the Midwest area. When the cutoff was threatened, only massive intervention primarily from the press and protesting Congressmen restored funding to this essential service.

The Grand Rapids Press subsequently ran an Editorial on August 11, 1983 in which they asked the following question:

> How does a government become so heartless that it arbitrarily decides to eliminate funding for a child amputee center? The answer apparently rests with a federal administration whose zeal for budget cutting at times sweeps away compassion, common sense and proportion.

While the situation with the Child Amputee Center merited national attention, other problems seemingly do not receive this type of focus. Low birth weight is such a problem and is heartening to look at the number of projects that have been funded by the federal set-aside to obtain further understanding about the problem of low birth weight and its remedies.

Federal set-aside funding has also been used over the years to promote infant health and improve pregnancy outcome for U. S. mothers. These activities should continue and careful attention should be paid to balancing the depth of the need in various parts of the country and targeting essential resources to meet those needs. This will require significant expenditures particularly if the problem of high infant mortality is to be addressed in key states and localities throughout the nation.

Monitoring. The tradition of "investigate and report" continues among maternal and child health professionals. In a democratic society it is one of the most potent tools available for focusing interest and attention on the health problems of mothers and children.

Dr. Martha May Eliot, one of the pioneers of maternal and child health, was an expert at investigations and reports. She also made certain that these reports were given directly to the President and the relevant committees of the Congress. An incident is described by Dr. Jessie M. Bierman about her initiation to "investigate and report".

> My introduction to Martha Eliot came early in my career in public health. It was in the Summer of 1936, shortly after I had joined the staff of the Montana State Board of Health as the Maternal and Child Health Director. The effects of the depression were still being felt, multiplied by eastern Montana's eighth year of drought. There were no crops, cattle were dying for lack of feed, and the temperature soared in the hundreds. A telephone call soon came from Washington. It was Dr. Eliot of the Children's Bureau asking how the children were fairing in the eastern counties. She informed me that Dr. Doris Murray of the Children's Bureau staff would arrive the following week to help me do a survey.[58]

Maternal and child health professionals, according to Dr. Bierman, must be continually sensitive and aware of the effects of social and economic deprivation on families and children. These same officials especially at the Federal Government level must have a capacity and a drive for decisive action.

Thus, the monitoring responsibility includes not only following the forces of social economic change as they occur in America, but also determining how the states and localities are performing in meeting their responsibilities.

Training. The Federal Government must assure that a continuing number of well trained maternal and child health specialists exist and can become employed in critically needed programs at the state and local level of government. These training program responsibilities can be fulfilled by supporting graduate programs in maternal and child health but also by training those who are currently at work in the field.

Training activities must be conducted in order to assure that the latest information and technology becomes available "where the rubber hits the road". This can be accomplished through newsletters and printed materials to be sure. However, most of the social change literature points to the fact that conferences, workshops and more importantly action consultation are what puts training across into the hands of those who can make use of this knowledge.

State Government Responsibilities

Given that the Federal Government is carrying out its responsibilities, the state public health authorities also have important responsibilities which differentiate them from the other levels of government and other types of agencies including volunteer and charitable groups in health care provider organizations. State government is different for at least four reasons: statewide perspective, population responsibility, access to resources and the prevention focus.

Statewide Perspective. Public health problems which may be rare in any particular community, like the women who delivers with little or no prenatal care or an infant born with a serious congenital defect, may upon statewide inspection of all such events be shown to be serious enough to justify intervention. Often state government must collate information over the period of several years and across all communities in order to form an accurate scientific picture. Highly trained personnel such as the medical epidemiologist and biostatistician are available at the state level in contrast to many local units of government which simply do not have the need or the resources to support this level of expertise.

Population Responsibility. Too often the states focus their total energy only on those programs for which they receive federal or state categorical funding. The focus then gets placed only on the clients that are directly served in these programs. While it is easy to say,"let the private or charitable sector take care of everybody else" or "staffing is short this year - we just can't afford to dilute our efforts" it remains the job of state health authorities to assure access to quality health services for all members of the population. This principle is easily driven home when a state health care crisis occurs. When the full weight of angry citizens, legislators and a questioning news media appears to discuss a health care crisis, it is clear that state health authorities must take responsibility for population health concerns in their jurisdiction.

In the State of Michigan there is great concern over the many toxic chemical waste dumps. These are serious health concerns which are being addressed by several departments within state government. There is a particular concern among women in the reproductive age group. The State Health Department must be prepared to answer questions regarding the level of stillbirths or the type of congenital defects which may or may not be occurring. Whether state health officials are willing to take responsibility or not surely in the eyes of the public state health officials cannot evade their population responsibility.

Access to Resources. The state health departments have significant financial and professional resources at their disposal. They also, if well run, have significant credibility in the eyes of lay and professional groups alike. This can mean that the state health department can access the resources of outside groups and bring their expertise and resources to bear on important public health problems. This is particularly true of diverse groups of influential policy makers health professionals and consumers are involved as full participants in a planning process. The "task force" approach to addressing maternal and child health and crippled children's problems can add extraordinary talent, talent far beyond the ability of the state health department to directly employ, to bear on important public health problems. The credible health department can also present its problems and needs to foundations and other groups with venture capital. Rarely will these funds flow directly into the state health department. Instead, with the state health department acting as a catalyst, such funds will go where they are needed most, usually to direct services to the affected population, training of care givers or even to demonstrations of new and potentially important changes to the existing service structure.

What are the elements of activities which may make up the state mission or role in carrying out a particular strategy? Among the most important are:

- Planning
- Promoting
- Educating
- Coordinating
- Surveillance
- Developing programs
- Assuring access to quality services
- Financing
- Consulting
- Training
- Monitoring
- Evaluating
- Researching and innovating
- Provising service

Many of these functions are interrelated, but there is often a responsibility at the state agency to initiate the process or action. The state is less often involved in the direct provision of services when contrasted with the local health department system. It is therefore of great importance that plans and programs are jointly planned and coordinated within the state-local public health system before health programs are carried out by community hospitals and agencies.

Prevention Focus. State public health agencies bring a strong commitment to prevention to the state health care scene. They believe that good health is more than the absence of disease and that it involves the maintenance of good health through a variety of important strategies.

Traditional public health workers are experts at casefinding, risk assessment, health behavior and lifestyle changes. These efforts dovetail nicely with other providers of health care in the state where direct providers such as physicians and hospitals are giving primary, secondary and teritary treatment, the state public health department can plan, promote and coordinate direct care providers with publicly provided preventive health care services.

Finally, the state health department can be instrumental in defining barriers to care in the state, allocating resources, examining alternatives, setting priorities and developing work plans. They are in an ideal position to work with both federal and local levels of government in making decisions on the type of health care interventions and strategies which might be most effective in a particular situation. Among these strategies are:[59]

- Targeted direct funded service programs
- Regionalized health care, e.g. perinatal intensive care

- Research and development
- Community organization
- Law rule or regulation
- Coalition building
- Investigations and reports

Local Government Responsibilities

The local government is the operational arm of the health department and not only delivers services at the local level but also integrates those services into the health and social service of the community. Local health departments are ideally suited to conduct such operations such as casefinding, primary, secondary and teritary preventive health care services, case management, referral and followup.

Local health departments are extremely interested in seeing that federal and state financing activities are better coordinated.

While the maternal and child health block grant program gives the appearance of consolidating thereby making many related programs easier to administer on the local level, this in fact did not occur. This is primarily due to the history of maternal and child health throughout the country in which targeting strategies did not assure the broad distribution of funding throughout all states and localities.

Local governments have become upset not only by the lack of financing given to them particularly when need goes up during recessionary times but also the apparent lack of coordination between the multiple federal and state funded categorical programs. For example, the maternal and child health block grant while consolidating six activities had no impact upon Title X Family Planning, Early and Periodic Screening Diagnosis and Treatment (EPSDT) and the WIC Supplemental Nutrition Program. Local Health Departments in Michigan are against program consolidations whose only purpose is to reduce funding. They do, however, wish that these programs could be redesigned in such a way as to reduce guideline conflicts, reporting demands and unpredictable funding cycles.[60]

Very often disparities exist in eligibility guidelines set for the various programs and thus families cannot be treated as a unit nor can the individual receive consistent service for various parts of his or her anatomy. For example, while a woman may be given free nutrition supplements, she may not qualify for free family planning services and her child may not be eligible for EPSDT screening services. In addition, reporting demands are built in by each level of government, often without negotiation, resulting in a maintenance of multiple data sets at the local level which can report back up the line within each categorical federal program. In addition to the reporting volume, much unnecessary information is often requested and forms are often inefficiently designed for local use. Perhaps most unfortunate of all is the realization at most levels of government that the information badly needed to evaluate the impact of a given program is not being collected. Despite the large amounts of data gathered, the necessary evaluative information is often unavailable.

Since local programs are dependent upon often unpredictable federal and state sources of funds for the continuation of their projects, they are at the mercy of funding cuts and freezes at these levels. These fluctuations can prove devastating to local program operation. Long range program planning is hindered by funding uncertainty. In addition, categorical programs often have different fiscal years and local boards of health are often called upon to use local funds to smooth out funding cycles or to cover unanticipated federal or state cuts. This arouses great resentment among boards of commissioners and makes it much harder to introduce new and badly needed health services. Long range financial planning is needed in order to provide stability to local program operations.

Summary

Federal, state and local government responsibilities in the area of maternal and child health have been briefly outlined. In general, each set of responsibilities links up with the differing perspectives which accrue to each level of government. Most importantly financing responsibilities, while spread through all levels of government, have generally been the greatest at the federal level followed by the state and local levels of government. In large measure, this reflects the taxing ability of each level of government.

It is particularly important for each level of government to meet its responsibilities and to communicate to the other levels what its intentions are along with regular reports of progress. Where uncertainty exists or where any one level of government fails to meet its responsibilities, one does not have to go far to find the victims. They are reflected in adverse health status statistics such as lack of prenatal care, incidence of low birth weight and infant mortality.

The Detroit Infant Health Promotion Coalition has developed a outreach and education campaign to its population. This campaign centers around making prenatal care available and accessible to all residents of Detroit. The theme of the campaign is "A Healthy Baby Begins With You". In a sense, this motto should be instructive to federal, state and local governments. A healthy baby depends on each level of government performing its responsibilities. It is, therefore, important for each level of government to monitor performance among the other levels. While this may at times create tension and conflict, resolution of these problems will certainly benefit the health care status of America's mothers and children.

RECOMMENDATIONS

Four key recommendations emerge from the foregoing analysis. While each of the Recommendations are in and of themselves important to carry out, they do form a package, which if taken together could make a substantial contribution toward reducing poor performance of the United States on the crucial health status indicator of infant mortality.

Infant mortality, while a tragic problem for the families who lose a baby, is of essential importance to the country as a whole. The United States must consider each of its children as a valuable national resource. Unless we promptly and forthrightly address these concerns, our nation will be unable to produce a generation of young people who, as Dr. Martha May Eliot has said,

> . . . are fully mature and healthy in body and mind, who are emotionally secure and able to give more than is asked for, to face success and frustration with equanimity, to be self reliant, to cooperate with their fellows, to take their place in a democratic society as thoughtful, responsible citizens concerned with the common good . . .[61]

The problem of high infant mortality must be immediately addressed by federal, state and local governments and special emphasis must be given to closing the gap between white and black infant death rates.

High infant mortality rates among subpopulations in our country especially minority black populations, are unacceptable in an enlightened and humanitarian society. The current gap between white and black infant death rates, which appears to be widening, is a potentially serious divisive force within our society.

Black infant death rates now approach three times that of white infants in Detroit, Michigan. These rates are among the highest of the nation although only fractions of a point seperate many of our great urban centers.

Other subpopulations also have high infant death rates and they include teenage mothers or children who are bearing children. In Michigan, 18 percent of our neonatal deaths and 25 percent of our post neonatal deaths are to teenage mothers under the age of 20 although they contribute only 14 percent of all live births. Other subpopulations such as those who receive fewer than five prenatal visits, experience 25 percent of all neonatal deaths and 15 percent of all post neonatal deaths even though they contribute only 4 percent of all the live births in Michigan.

Maternal and child preventive health services are both low cost and demonstrably effective and should be immediately expanded to reduce low birth weight, a condition which is associated with two-thirds of all infant deaths. These services include family planning, prenatal care, supplemental nutrition, substance abuse, outreach and education.

While infant mortality is a large and vexing problem for many areas of the United States, it is also happily one in which the solutions have been well known since the 1920's.

It is not necessary to conduct further research or major studies to determine the remedies for the infant mortality problem. The scientific literature is abundant and need only to be applied.

In a time when the United States at the federal, state and local level is experiencing great difficulty in raising adequate revenue to meet human service needs, it is indeed fortunate that the solutions for infant mortality are low cost.

The following specific financing recommendations are detailed below.

- Title X Family Planning Program should be restored to the $160 million nationwide level with inflation increments for the years 1982 and 1983.
- Maternal and Child Health Block Grant should be restored to a $483 million level in the current fiscal year and established at the $500 million level for FY 1985.
- The Medicaid enhancement package, formerly known as CHAP, should be immediately adopted so that critically needed maternity, infant and child care services could be provided through the federal/state Medicaid Program.
- New programs to provide prenatal, labor and delivery and infant care programs should be developed and targeted to states and localities experiencing high rates of inadequate prenatal care, low weight, live births and infant mortality rates. The Michigan model is offered as a demonstration which could be conducted over a three year period using both federal and state financing.[62]
- Maternal and child nutrition programs such as WIC Supplemental Foods should be expanded to meet 75 percent of the estimated level of need in the United States during fiscal 1984-85.

Automated "sentinel" vital and health statistical systems should be established in key locations across the United States to provide an early warning system for infant mortality fluctuations.

Dr. Barbara Starfield, Johns Hopkins University and Dr. Ronald Williams of the University of California at Santa Barbara have proposed that sentinel reporting systems be established to provide crucial information to public policy makers and government officials on key health status indicators, one of which is infant mortality.

At the present time, U.S. statistical systems are inadequate to meet our needs for health care information. The National Center for Health Statistics continues to report provisional infant mortality rates going back to 1981. As has been demonstrated by this report, the situation is fluid with regard to infant mortality and there are a great many problems, trends and analyses which need to be conducted for the 1981-83 period. This is virtually impossible when using provisional information as there is constant under reporting for the state and local level of infant mortality. For example, as late as November 1983, the National Center for Health Statistics was reporting provisional infant mortality rates for Michigan for the years 1981 and 1982 which under reported infant deaths by 130. This under reporting also led to a "provisional" lowering of the Michigan infant mortality rates, making it appear that the problem is less serious than it has actually turned out to be.

Without such systems and a federal government commitment to build such systems, it is unlikely that key health indicators will be tracked closely enough to protect the health of America's mothers and children.

A new unit for children, youth and families should be established at a high level within the federal government. This unit must, among other important functions, "investigate and report" on the conditions which affect the health and welfare of America's mothers and children.

The United States is presently one of the few industrialized nations of the world which does not have a high level policy unit within the government whose primary responsibility is to protect children, youth and families.

With the dissolution of the productive Children's Bureau in the late 1960's, the United States lost crucial policy direction for protecting women and children.

Existing programs now operated by various branches of government should be coordinated or realigned and many of them possibly folded into the new administrative unit. There must also be strong program authority mandating coordination with other programs addressing the needs of women and children including supplemental foods, Early Periodic Diagnosis and Treatment and Headstart.

This unit should be responsible for carrying out the essential elements of a comprehensive maternal and child health program in the United States including:

- Studies aimed at identification and solution of problems affecting the well-being of mothers and children.
- Organization of maternity services including adequate prenatal, perinatal and postnatal care.
- Continuing health supervision services for all children from birth through childhood and adolescence.
- Organized programs of health education for parents, children of school age and the general public.
- Establishment of standards for health personnel serving mothers and children and for facilities providing for their health care.
- Systematic manpower development and training activities.
- Continuing assessment of the efficiency and effectiveness of health service delivery for mothers and children.
- Support of research and development activities, the results of which could be used as a basis for further program planning and development.[63]

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EPILOGUE

In the last analysis, a child is the one who will continue what you have begun, who will sit right where you are sitting and witness the things you consider very important when you have gone: you may take all the measures you like but the manner in which they are carried out will depend upon the child.

Even though you may sign alliances and treaties, it is the child who will execute them. Children will take your seats in the Assembly and assume control of churches, schools, universities, councils, corporations, cities, states and nations.

All your work will soon be praised or condemned by children. The future of our country will be in their hands. Therefore, I and other public health scientists believe it would not be a bad idea to pay some attention to children ... now.

Unknown Panamanian Author

Appendix A

CONDITIONS EXPOSED BY PRENATAL CARE

Prepared by: Lee B. Stevenson, M.D., F.A.C.O.G, F.A.C.S.
OB/GYN Consultant to Division of Maternal & Child Health
Michigan Department of Public Health

Quality prenatal care produces three types of benefits: direct, indirect and implied. Each has an impact on the quality of the product of the pregnancy that is so vital to this discussion.

Direct benefits occur and accrue through the contact with an informed medical team meeting or exceeding the guidelines for prenatal care recommended by the American College of Obstetricians and Gynecologists. These include but are not limited to: 1) beginning prenatal care as early as possible in the first trimester of pregnancy. This requires extra medical education of the importance of the delayed or missing menstrual period and the suspicion aroused by early subjective signs of pregnancy in addition to missed menses, such as breast engorgement or sensitivity, changes in patterns of urination and fatigue; 2) early discussion of the prenatal care plans - by whom, what, where, when and how; 3) the thorough initial evaluation by complete medical health pregnancy, family and psychosocial history; the complete physical examination and laboratory studies and the assessment of risk. This risk assessment should be updated, utilizing special studies when indicated, regularly to plan for transfer to a Level II or III facility when changes in status occur; 4) visits to the doctor for a "hands-on" evaluation including weight, blood pressure, urinalysis for sugar and protein, measurement of fundal height, observing fetal heart tones and fetal movement should occur every 4 weeks for the first 28 weeks, every 2 weeks thereafter to 36 weeks, and once a week thereafter until delivery; 5) hospital evaluation of the patient includes adherence to protocols and routines for evaluation on admission. The prenatal record or a copy of it should be available at the hospital and may be consulted along with the current history or examination. All action must be focused on duration of pregnancy, presence of bleeding, premature rupture of the membranes, blood pressure elevations and other signs of toxemia of pregnancy and timing of last food intake. Labor monitoring for the mother is routine and electronic monitoring of the fetus can be important in the pregnancies assessed at higher risk. Some recommend monitoring of every unborn during labor.

Attention to details and appropriate management is crucial to accomplish the steps and procedures involved in good quality obstetric care and a successful outcome of each pregnancy monitoring the life and health of the mother and assuring the healthy life of the newborn.

A fringe benefit of significance is the discovery of an unknown or unsuspected medical problem. It has been said that obstetricians discover or detect more diabetes than any other specialty group.

The indirect benefits include improved health and nutrition education and experience. The danger of alcohol, tobacco and other addicting drugs are discussed. The history of use of potentially teratogenetic drugs is explored. Psychosocial services establish a contact which may be helpful beyond contraceptive education for spacing as well as planning a family.

The implied benefits are the accomplishment of our objectives - a healthier mother and therefore a healthier infant. This includes decreased prematurity or low birth weight infants.

Conditions Detected By Prenatal Care

Hypertension, toxemia
Anemia - see list for many kinds
Rh negative - ± sensitization
Syphilis - with serology
Rubella - with titres
Gonorrhea - with cultures
Cervical cancer - with Pap smear
Sickle cell diseases
Obesity
Diabetes mellitus - detected with urinalysis or history, confirmed with appropriate blood tests
Virus diseases detected with virus screen
Heart diseases
Lung diseases - tuberculosis with Tine test
Cancer by thorough history and physical examination
Urinary tract infection (asymptomatic bacteruria)
Vaginitis (that can predispose to premature rupture of membranes)
Abnormalities of placenta - location, growth and size with ultrasound
Fetal death in utero - no movement, no fetal heart tones, ultrasound, x-ray, decreased measured fundal height
Thrombophlebitis
Incompetent cervix - requiring suture of cervix at appropriate time to prevent premature labor or abortion
Infections - acute and chronic
Ultrasound can detect fetal anomalies, inadequate amniotic fluid too

I. Fetal Infections (TORCH) - Congenital in infant

T = Toxoplasma Gondii

O = (Others) Treponemia pallidum
Type B serum hepatitis virus
Hepatitis B, Hepatitis C
Listeria monocytogenes
Hemophilus Influenzae
Group B Beta-hemolytic strep
Mumps virus

R = Rubella

C = Cytomegelovirus

H = Herpes simplex virus, types I & II

II. Maternal Conditions Complicating Pregnancy

S.T.D. - Gonorrhea, penicillin resistant gonorrhea
Urinary tract infection (asymptomatic bacteruria) Rx bolus, 10 day course, prophylactic during pregnancy
Intrauterine devices - should be removed
Tuberculosis Dx - Tine test Rx chemical
Malaria - very rare
Mycoplasma Hominis and T strains Rx postpartum with tetracycline
Cardiac disease
Thrombophlebitis
Pulmonary embolism
Upper respiratory infections, bronchitis and pneumonia
Asthma
Liver diseases -Cholecystolic jaundice of pregnancy; acute fatty liver; acute pancreatitis
Ulcerative colitis
Regional enteritis
Subarachnoid hemorrhage ± aneurysm
Seizure disorders
Diabetes mellitus
Hyperthyroidism (or hypothyroidism)
Hypoadrenalism (Addison's disease)
Pheochromocytomas (these cause hypertension)
Anemias - iron deficiency anemia; thalassemia; hemolytic anemias (sickle cell trait (A/S); sickle cell anemia (S/S); sickle cell hemoglobin C disease (S/C); sickle cell thalassemia (S/TH); hemoglobin C disease (C/C)); folic acid deficiency; leukemia
Dermatologic disease - herpes gestationis; papular demolitis of pregnancy; prurego of pregnancy; impetigo herpetiformis; pigmented nevi; malignant melanomas; alopecia; pemphigus; erythema multiforme gestations; condyloma accuminata; acne; psoriasis

Renal disease - acute glomerulonephritis; chronic glomerulonephritis; nephritis of systemic lumpus erythematosis; chronic undifferentiated renal disease; acute renal failure; postpartum renal failure; chronic interstitial nephritis

Collagen diseases - lupus erythematosis; scleroderma; marfan's syndrome; periarteritis nodosa

Physical/chemical conditions - radiation; work-related hazard, i.e. anesthesias; teratogenetic agents; carcinogenic agents; drugs that cause fetal demise i.e. dicumarol, ergot, head; drugs that alter birth weight i.e. cigarette smoking, prolonged steroid Rx for asthma or arthritis; drugs that interfere with immediate adaptation to utrauterine life i.e. narcotics, barbiturates, reserpine, hexamethonium, magnesium sulfate, electrolytes, phenothiazines, diazepam; drugs that interfere with prolonged behavior adaptation i.e. alcohol, analgesics and anesthesias; drugs that affect metabolic pathways; drugs that alter vital functions needed for survival, etc.

Mr. **Dingell**. Mr. Taylor, the committee thanks you for a most helpful statement. In view of time constraints that exist and the presence of witnesses from and on behalf of the administration the Chair is going to do something that I do not like to do. It is rather unusual, but would it be of objection to you to defer questioning until we have heard from the other witnesses?

Mr. **Taylor**. No, sir.

Mr. **Dingell**. With that, we excuse you briefly. I apologize for this procedure, but we will bring you back and hope this does not overly inconvenience you.

The Chair announces that our next witnesses will be a panel of witnesses on behalf of the administration, Dr. Edward N. Brandt, Jr., Assistant Secretary for the Department of Health and Human Services; Dr. Carolyne Davis, Administrator, Health Care Finance Administration, and other officers of the agency.

Ladies and gentlemen, we thank you for being present with us. The Chair will inquire—the Chair will make a preliminary statement.

First, ladies and gentlemen, it is the practice of the Committee on Oversight that all witnesses at investigatory proceedings are required to testify under oath.

Do you have objection to testifying under oath at this time?

[A chorus of noes.]

Mr. **Dingell**. The Chair is compelled to ask under the rules, do either of you desire to have counsel present for purposes of advising you with regard to your rights on the rules of the House or the limitations on the powers of the committee?

[A chorus of noes.]

Mr. **Dingell**. The Chair will observe that copies of the rules of the House, of the committee and of the subcommittee are there in the red and the yellow booklets for you, in conformity with the House rules, to apprize you of your rights and the limitations on the powers of the committee.

Would you then please rise and raise your right hand?

[Witnesses sworn.]

Mr. **Dingell**. You may each consider yourself to be under oath. Dr. Brandt, if you will identify yourself for purposes of the record, we will receive your testimony.

TESTIMONY OF EDWARD N. BRANDT, JR., ASSISTANT SECRETARY FOR HEALTH, DEPARTMENT OF HEALTH AND HUMAN SERVICES; ACCOMPANIED BY CAROLYNE K. DAVIS, ADMINISTRATOR, HEALTH CARE FINANCING ADMINISTRATION

Mr. **Brandt**. I am Dr. Edward N. Brandt, Jr., the Assistant Secretary for Health, Department of Health and Human Services. I am here with Dr. Davis, Administrator of the Health Care Financing Administration, to discuss an issue of great concern to our Nation: Infant mortality.

As a nation, we can be proud of our achievements in improving maternal and infant health. For example, the provisional infant mortality rate for 1983 was 10.9, the lowest rate in history. Babies born at the present time will live healthier and longer lives than ever before. Yet just over 1 percent will not survive their first year.

At the same time, there remain disturbing geographical variations and disparities between subpopulations in our Nation. We are concerned about these disparities as are the States, localities, professional groups and others.

Infant mortality rates [IMR] in this country have been declining at a rapid pace since the late 1960's as shown on this chart. As I mentioned, the provisional rate of 10.9 infant deaths per 1,000 live births in 1983 is the lowest rate thus far recorded for our country.

The IMR among black infants, however, remains almost twice that of white infants. In 1981, the latest year for which race-specific data are available, the national IMR was 11.9 per 1,000 live births, while the IMR was 10.5 for white infants and 20 for black infants. The continuing high black IMR is indeed a major concern. This problem, however, is not of recent origin. It has been with us for many decades, as that chart clearly shows.

All this is said to make clear that interpreting infant mortality data must be done thoughtfully, carefully and objectively. Reducing infant mortality is a complex task with no simple and quick solution.

Low birth weight [LBW], less than 2,500 grams, is the most important risk factor associated with infant mortality. Compared to the decline in infant mortality, the incidence of LBW has declined relatively slowly during the 1970's as shown by the chart. Since the progress toward reducing LBW has been less than desired, we are continuing to seek new understanding regarding this problem.

As a result of our efforts, we have come to understand that the prevention of LBW is complex. No single factor accounts for all of the variation in birth weight and, hence, no single intervention will be effective. In fact, the combination of many variables such as demographic characteristics of the mother, medical and obstetric history, physical stature of mother, smoking and alcohol use, nutrition, as well as gestational age, explain only a portion of the birth weight variation.

Better understanding of the biomedical and social factors related to LBW are essential to the development of effective intervention strategies.

Here again, blacks continue to be twice as likely as whites to deliver a low birth weight infant. There have been many studies of the black-white differential in pregnancy outcome over the past several decades. I have included some of the reasons cited for poor outcome among blacks in the testimony.

It is important, however, to recognize that even when several factors are controlled simultaneously, black women continue to be twice as likely as white women to have low birth weight infants. Based on an analysis of 1981 birth certificate data, the rate of low birth weight infants among college-educated, married women, age 25 to 29 having their second child who began prenatal care in the first trimester was estimated to be 2.3 for whites and 5.6 for blacks.

The fact that mature, married, college-educated black women who received prenatal care are still twice as likely as their white counterparts to deliver a low birth weight infant indicates that the black-white disparity represents much more than a simple phenomenon. Therefore, single focused approaches may not realize the significant reduction in the black-white gap we all hope to achieve.

Reducing infant mortality is a national problem that requires the efforts of all members of our society for solution. The individual woman should assume responsibility to seek proper medical care and comply with medical advice; the local community should provide support systems; the health care professionals should provide appropriate scientifically based advice and care; the State authorities should define areas of need and plan to meet those needs supported by such programs as the health block grants and State and local funds.

In this light, some comments on the relative effectiveness of various interventions to improve pregnancy outcome and infant health become important. I believe quality prenatal care is an important intervention opportunity. There is little question as to the value of prenatal care in improving the health of the pregnant woman and preventing or reducing the complications of pregnancy and labor such as eclampsia.

It has been asserted that more prenatal care for high-risk women will also reduce LBW. However, the task of determining the effectiveness of prenatal care for improving fetal health and reducing low birthweight has been difficult. In fact, the Institute of Medicine has formed a committee, with whom we are working closely, to investigate the whole area of prevention of low birthweight.

The 10 years between 1970 and 1980 showed steady progress toward narrowing the black-white gap in receipt of early prenatal care and a significant trend toward achieving high rates of women receiving early care.

Nonetheless, only 62 percent of black women delivering in 1981 received prenatal care in the first trimester compared to 79 percent of white women. These 1981 natality data showed a very small decline in receipt of early care among black women, representing a departure from the upward trend of the previous decade. It is difficult to draw firm conclusions about the reasons for the slight decline since it appears that it occurred uniformly among both high- and low- risk black women. For the United States as a whole, no subgroup of black women showed a decline of more than 1 percentage point. We are now analyzing State trends in prenatal care.

When dealing with these recent trends in prenatal care, it is important to recall an issue I touched on earlier. Recent studies suggest that the quality and content of prenatal care may be the most important ingredient. Yet, despite our increased understanding of risk factors, such as smoking, we still know comparatively little about how to modify at-risk behavior. We need to expand our knowledge in order to target our resources and develop effective responses to prevent low birthweight.

As you are aware, in 1980 "Objectives for the Nation" were established to call attention to specific areas where work must be done to improve health, prevent disease and reduce the burden of disability.

The quantitative objectives selected for the pregnancy and infant health area focus on lowering infant, neonatal and perinatal mortality rates, reducing low birthweight, and improving health for pregnant women and infants. Attached to my testimony, you will find a complete list of all of the priority areas. A number of them have significant implications for improving the health of mothers and newborn children. However, the single priority area most immediately and uniformly relevant to our areas of mutual concern and interest today is that which deals with pregnancy and infant health.

Assuming the same average percent decline for IMR of the past decade, the projected estimate of IMR for the Nation as a whole will fall well within the target of 9 infant deaths per 1,000 live births. However, extrapolation of the black rate yields an IMR of 13.5 as opposed to the target of 12 deaths per 1,000 live births. We have recently established a task force on LBW within the context of the 1990 objectives. An important component of this initiative is accelerated research activity. In fact, the National Institute of Child Health and Human Development has developed an expanded research agenda for the prevention of LBW.

At this point, it is important to emphasize the joint responsibilities shared by the individual, the health professionals, the State and local health authorities, and the Federal Government. Specifically, the role of the Federal Government includes five roles.

The PHS has many activities and programs that strive to reduce infant mortality, all of which have been important in the progress we have made in the last 15 years.

I have highlighted a number of those under each of those roles and responsibilities that we see held by the Federal Government. That includes, of course, the research component as well as our public and professional education. Mr. Chairman, I would like to submit for the record two examples of our public education: our newest volume, "Prenatal Care," which is, I am told the leading seller from the Government Printing Office—this one is hot off the press, and we have copies of all members of the committee—a kit put out by the Healthy Mothers/Healthy Babies Coalition, which is a coalition of some 60 professional and voluntary organizations aimed at public education. With your permission, I would submit those for the committee.

Mr. WAXMAN. Without objection, those items will be received by the committee for inclusion in the record at the discretion of the chairman.

Mr. BRANDT. Thank you.

I would also submit to you an implementation plan for attaining our objectives which includes the plan for attaining the pregnancy and infant health objectives, Mr. Chairman.

Mr. WAXMAN. Without objection, that item will be received by the committee for inclusion in the record at the discretion of the chairman.

[The documents referred to may be found in subcommittee files.]

Mr. BRANDT. Today, Mr. Chairman, I have discussed various issues surrounding infant mortality and low birthweight and have provided you with a brief listing of some of our current activities relating to these important topics.

The Federal efforts I have identified are just one part of the full range of Federal, State, local, and private sector programs necessary to meet the 1990 objectives. By no means are these the only efforts.

We know well that many community and State agencies are undertaking innovative efforts to improve their infant mortality rates. We have received very recently a report on such efforts which I will submit for the record, which summarizes activities going on in each of the States designed to reduce infant mortality.

Mr. WAXMAN. Without objection, that item will be received by the committee for inclusion in the record at the discretion of the chairman.

Mr. BRANDT. Thank you very much.

[Testimony resumes on p. 117.]

[The prepared statement of Mr. Brandt follows:]

STATEMENT

by

EDWARD N. BRANDT, JR., M.D.

ASSISTANT SECRETARY FOR HEALTH

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE

I am here today with Dr. Carolyne K. Davis, Administrator of the Health Care Financing Administration, to discuss an issue of great concern to our Nation--infant mortality.

As a Nation, we can be proud of our achievements in improving maternal and infant health. For example, the provisional infant mortality rate for 1983 was 10.9, the lowest rate in history. Babies born at the present time will live healthier and longer lives than ever before; yet just over one percent will not survive their first year. However, there remain disturbing geographical variations and disparities between sub-populations in our Nation. We are concerned about these disparities as are the States, localities, professional groups, and others.

A brief look at some recent statistics will provide an important background for our discussion today. There are 52 million women of reproductive age in this country. They had a total of 3.6 million live births in 1983. Included in those numbers are at-risk groups:

- o nearly 200,000 babies born to school-age adolescents under 18 years of age, including nearly 10,000 to girls under the age of 15;
- o nearly a quarter of a million infants who weigh less than 2500 grams at birth;
- o over 900,000 infants born to women who smoked during pregnancy; and
- o over one million infants born to women who drank during pregnancy.

Almost 40,000 live-born infants died in 1983 before reaching their first birthday.

National Trends in Infant Mortality

Infant mortality is defined as the death of a live-born infant under one year of age and is usually expressed as a rate (IMR) per 1000 live births. Infant mortality rates in this country have been declining at a rapid pace since the late 1960s as shown on this chart. As I mentioned, the provisional rate of 10.9 infant deaths per 1000 live births in 1983 is the lowest rate thus far recorded for our Nation. The IMR among black infants remains almost twice that of white infants. In 1981, the latest year for which race-specific data are available, the national IMR was 11.9 per 1,000 live births, while the IMR was 10.5 for white infants and 20.0 for black infants. These rates represent IMR declines from 1980 of 4.5 percent for white and 6.8 percent for black infants. The continuing high black IMR is indeed a major concern. This problem, however, is not of recent origin. It has been with us for many decades.

All this is said to make clear that interpreting infant mortality data must be done thoughtfully, carefully, and objectively. Reducing infant mortality is a complex task with no simple and quick solution. We are continuing to examine the factors associated with infant mortality to identify opportunities for appropriate interventions.

National trends in the incidence of low birth weight (LBW)

Low birth weight (less than 2500 grams) is the most important risk factor associated with infant mortality. Compared to the decline in infant mortality, the incidence of LBW has declined relatively slowly during the 1970s as shown by the chart. Since the progress toward reducing LBW has been less than desired, we are continuing to seek new understanding regarding this problem. As a result of our efforts, we have come to understand that the prevention of LBW is complex. No single factor accounts for all of the variation in birth weight and hence, no single intervention will be effective. In fact, the combination of many variables such as demographic characteristics of the mother, medical and obstetric history, physical stature of mother, smoking and alcohol use, nutrition, as well as gestational age, explain only a portion of the birth weight variation. Better understanding of the biomedical and social factors related to LBW are essential to the development of effective intervention strategies.

Here again, blacks continue to be twice as likely as whites to deliver a low birth weight infant. There have been many studies of the black/white differential in pregnancy outcome over the past several decades. Among the reasons cited for poor outcome among blacks are the following:

- higher proportions of teenage, high parity, and out-of-wedlock births;
- lower socioeconomic status;
- higher incidence of anemia and hypertension; and
- lack of adequate nutrition.

Findings from various analyses illustrate the complexity of the relationships among factors associated with a greater risk of LBW. For example, maternal smoking and alcohol consumption are associated with reduced birth weight. Yet data on married women from the 1980 National Health Interview Survey and the 1980 National Natality Survey show that black women are somewhat less likely than white women to smoke or drink.

Even when several factors are controlled simultaneously, black women continue to be twice as likely as white women to have low birth weight infants. Based on an analysis of 1981 birth certificate data, the rate of low birth weight infants among college educated, married women, age 25-29 having their second child who began prenatal care in the first trimester was estimated to be 2.[illegible] for whites and 5.6 for blacks.

The fact that mature, married, college educated black women who received prenatal care are still twice as likely as their white counterparts to deliver a low birth weight infant indicates that the black/white disparity represents much more than a simple phenomenon. Therefore, single focused approaches may not realize the significant reduction in the black/white gap we all hope to achieve.

Important Principles

Let me note some principles that may be self-evident, but nonetheless are important if we are to succeed in further reducing infant mortality and preventing low birth weight:

- assuring that the mother's health is optimal at the time of pregnancy through the provision of proper medical care, with special attention to appropriate treatment and control of diseases such as diabetes, hypertension, and anemia;

- avoiding behavior known to be related to untoward pregnancy outcomes, such as smoking, alcohol consumption, and drug abuse, and improper nutrition;
- assuring that the pregnancy has been planned to coincide with optimal maternal age and interval between pregnancies.

Reducing infant mortality is a national problem that requires the efforts of all members of our society for solution. The individual woman should assume responsibility to seek proper medical care and comply with medical advice, the local community should provide support systems, the health care professionals should provide appropriate scientifically based advice and care, the State authorities should define areas of need and plan to meet those needs supported by such programs as the health block grants and State and local funds.

Prenatal Care

In this light, some comments on the relative effectiveness of various interventions to improve pregnancy outcome and infant health become important. I believe quality prenatal care is an important intervention opportunity. There is little question as to the value of prenatal care in improving the health of the pregnant woman and preventing or reducing the complications of pregnancy and labor such as eclampsia. It has been asserted that more prenatal care for high risk women will also reduce LBW. However, the task of determining the effectiveness of prenatal care for improving fetal health and reducing low birth weight has been difficult. In fact, the Institute of Medicine has formed a committee, with whom we are working closely, to investigate the whole area of prevention of low birth weight.

The ten years between 1970 and 1980 showed steady progress toward narrowing the black/white gap in receipt of early prenatal care and a significant trend toward achieving high rates of women receiving early care. Nonetheless, only 62 percent of black women delivering in 1981 received prenatal care in the first trimester compared to 79 percent of white women. Those 1981 natality data showed a very small decline in receipt of early care among black women, representing a departure from the upward trend of the previous decade. It is difficult to draw firm conclusions about the reasons for the slight decline since it appears that it occurred uniformly among both high and low risk black women. For the U.S. as a whole, no subgroup of black women showed a decline of more than one percentage point. We are now analyzing State trends in prenatal care.

When dealing with these recent trends in prenatal care, it is important to recall an issue I touched on earlier. Recent studies suggest that the quality and content of prenatal care may be the most important ingredient. Yet, despite our increased understanding of risk factors, such as smoking, we still know comparatively little about how to modify at-risk behavior. We need to expand our knowledge in order to target our resources and develop effective responses to prevent low birth weight.

Objectives for the Nation

As you are aware, in 1980 "Objectives for the Nation" were established to call attention to specific areas where work must be done to improve health, prevent disease and reduce the burden of disability.

Assuring all infants a healthy start in life and enhancing the health of their mothers are important components of our measurable objectives for the improvement of the health of Americans. The quantitative objectives selected for the Pregnancy and Infant Health area focus on lowering infant, neonatal and perinatal mortality rates, reducing low birth weight, and improving health for pregnant women and infants.

A number of objectives in several of the other priority areas, such as immunization, family planning, smoking control, nutrition, control of sexually transmitted diseases, and alcohol and drug misuse prevention have significant implications for improving the health of mothers and newborn children. However, the single priority area most immediately and uniformly relevant to our areas of mutual concern and interest today is that which deals with pregnancy and infant health. (See chart)

Assuming the same average percent decline for IMR of the past decade, the projected estimate of IMR for the Nation as a whole will fall well within the target of 9 infant deaths/1,000 live births. Extrapolation of the black rate yields an IMR of 13.5 as opposed to the target of 12 deaths/1,000 live births.

Between 1970 and 1980, LBW declined modestly by 14 percent with the reduction in the proportion of full-term LBW infants accounting for 75 percent of this decline. At the current rate of progress, we, at this point, expect to fall short of our targets. As a result of concern about the low birth weight problem, I have recently established a Task Force on LBW within the context of the 1990 Objectives. An important component of this initiative is accelerated research activity. In fact, the National Institute of Child Health and Human Development has developed an expanded research agenda for the prevention of LBW. Our infant mortality efforts will coordinate with Secretary Heckler's Task Force on minority health concerns, which will deal with the broad issues affecting the health of minorities in this country.

At this point, it is important to emphasize the joint responsibilities shared by the individual, the health professionals, the State and local health authorities, and the Federal Government. Specifically, the role of the Federal Government includes the following:

- education of the public
- information dissemination to health professionals
- research leading to improved interventions
- assistance to State and local authorities via technical assistance and funding via block grants and categorical programs, and
- direct provision of services such as the Indian Health Service

We need to emphasize the importance of combining the family planning program with other primary care activities in the Primary Care block grant which we continue to urge the Congress to adopt. There are a number of advantages to an integrated approach.

- promotion of good health practices by women who are becoming sexually active, including immunization against rubella, counseling regarding health effects of lifestyle choices, proper spacing of pregnancies and appropriate care for those women with chronic diseases such as diabetes, hypertension, sexually transmitted diseases, and genetic illnesses such as sickle cell disease

- the fact that women for whom contraceptive methods fail are already in the system for care and prenatal care can be implemented promptly and early
- early implementation of counseling as to pregnancy
- follow-up on the child to ensure good well-baby care, immunizations, etc. can be implemented

The PHS has many activities and programs that strive to reduce infant mortality, all of which have been important in the progress we have made in the last 15 years. The following examples highlight some of these activities:

Service Programs

- The Maternal and Child Health (MCH) block grant helps each State assure access to maternal health services of good quality and to reduce infant mortality--especially by providing prenatal care and preventive services as well as delivery and postpartum care. Through this consolidation of program and funding activities, States have full control and authority over substantial resources which they can allocate in the light of their own needs assessments and priorities. Results from the GAO draft report on implementation of the MCH block grant in 13 States, indicate an increased emphasis on services relating to improved pregnancy outcome, including prenatal and postpartum care.

- The MCH program has supported a wide range of activities to strengthen the capacity of the States to improve health status outcomes for mothers and children. For example, special project funds were awarded to States with excessive infant mortality (and adolescent pregnancy) to assist in the development of regionalized perinatal systems. These projects, known as the Improved Pregnancy Outcome (IPO) projects, are currently funded in 20 States and their activities are now being integrated with MCH block grant programs. Continuation of these services by the States, and the decline in infant mortality indicate that these IPO projects, along with other factors, have had positive results.
- The National Health Service Corps and the MCH program are working jointly to identify obstetric and pediatric underserved areas in the U.S. utilizing rates of low birth weight and postneonatal mortality to place about 100 obstetricians and 200 pediatricians to provide direct services in underserved at-risk areas.
- Community Health Centers and Migrant Health projects provide prenatal care to medically underserved pregnant women and have been associated with significant improvement in black infant mortality rates.

- The Indian Health Service, working with tribal health departments, private practitioners and national professional organizations, provides comprehensive maternal and child health services. Emphasis is on early identification of pregnant women and entrance to care, especially for the teenage population, to permit delivery of proper services and early health education. We have made great progress in reducing Indian infant mortality rates and are, therefore, conducting an analysis of IHS-MCH data to understand better what factors have contributed to our progress and to identify the areas in which we must do more work.
- Through the Adolescent Family Life Program we fund projects to prevent adolescent pregnancy by reaching adolescents before they become sexually active, to discourage adolescent sexual activity, and to minimize the adverse consequences for pregnant adolescents and their children. The program funds demonstration projects that offer care and prevention services in different delivery settings. After final evaluations of each model program have been completed, local communities will be able to adopt proven models.

Research Activities

- The National Institute of Child Health and Human Development (NICHD) has assigned the highest priority to research on the low birth weight infant, its etiology, prevention, and treatment. NICHD has developed an expanded research initiative to prevent low birth weight. The initiative includes research on intrauterine growth retardation (fetal growth factors, biological predictors of fetal growth and Perinatal Emphasis Research Centers); research on premature labor (biochemistry of labor and premature rupture of membranes); and research on environmental factors (nutritional, socioeconomic, risk-taking behavior, physical activity, and working conditions). The initiative includes a cooperative network of maternal-fetal medicine units for clinical studies, educational efforts, joint efforts with other agencies and foundations, and a National Low Birth Weight Advisory Committee.

- The Federal response to the knowledge we have gained over the last decade on the effects of alcohol consumption during pregnancy has consisted of (1) vigorous public education, (2) heightened professional education, and (3) continued support of research. At the present time, the National Institute on Alcohol Abuse and Alcoholism supports 21 fetal alcohol research projects to address such issues as the effects of binge or episodic drinking, the effects of alcohol exposure during critical periods of fetal development, mechanisms causing the adverse effects of alcohol on infants, and long-range development of children born to mothers who drank during pregnancy.

This only represents a sample and not the full range of PHS research activities related to infant mortality.

Data and Surveillance

- The Centers for Disease Control will initiate this summer a National Infant Mortality Surveillance which will provide birth weight-specific mortality rates for various specific maternal characteristics.

- The National Center for Health Statistics (NCHS) is undertaking a study to assess the feasibility of establishing a national system of linked birth and death records which will provide an improved data base for monitoring infant mortality trends.
- NCHS is linking the 1980 and 1981 National Death Index with the 1980 National Natality Survey (NNS) in order to prepare special analyses on infant mortality. For example, infant mortality rates will be generated for multiple data items in the NNS, such as birth weight, maternal complications of pregnancy, and maternal smoking.
- Further, NCHS is developing an International Collaborative Effort to identify what we can learn from our international neighbors, especially those countries with the lowest infant mortality rates. The first step will be a meeting later this year with eminent researchers from those countries to select the specific topics for research and to develop appropriate protocols.

Public and Professional Education

- The PHS was one of the six founders of the Healthy Mothers, Healthy Babies Coalition, a group representing voluntary, health professional and State, local and Federal governmental agencies concerned about the health of mothers and babies. While the Coalition acknowledges the primary importance of the delivery of health services, its purpose is to improve the quality and availability of public education on prenatal and infant care. Its goals are to:

- -- promote public awareness and education in preventive health habits for all pregnant women;
- -- develop networks for sharing information among groups concerned about improving the health of mothers and babies;
- -- distribute public education materials on topics related to improving maternal and child health; and
- -- assist the development of local Healthy Mothers, Healthy Babies Coalitions.

o Under the auspices of the Healthy Mothers, Healthy Babies Coalition, the PHS has produced and distributed, in English and Spanish, radio spots, posters, pamphlets, newspaper columns, teacher guides, and bibliographies to clinics serving low income areas, WIC offices, health departments, and schools nationwide. A program to promote breast feeding is under way, jointly sponsored by five medical professional organizations, and a special committee of the Coalition is addressing the educational needs of low income women.

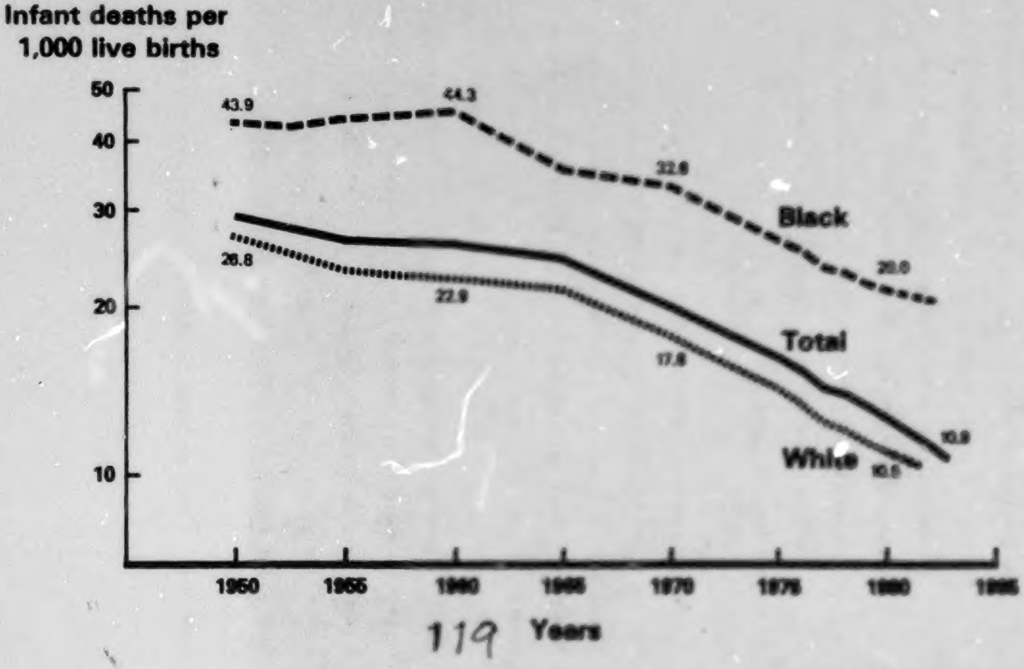
o The Food and Drug Administration (FDA) is preparing a final rule establishing labeling requirements for infant formulas which will provide information to health care professionals and consumers, including those who cannot read English, on the appropriate preparation and use of infant formulas to assure the health and well-being of infants. The agency is also preparing a proposal to revise the infant formula nutrient requirements, based on the 1983 recommendations of the Committee on Nutrition of the American Academy of Pediatrics. Further, FDA is preparing a final rule to establish quality control, nutrient, and labeling requirements for infant formulas that are intended for infants with special medical and dietary needs.

Today, I have discussed various issues surrounding infant mortality and low birth weight and have provided you with a brief listing of some of our current activities relating to these important topics. The Federal efforts I have identified are just one part of the full range of Federal, State, local and private sector programs necessary to meet the 1990 Objectives. By no means are these the only efforts. We know well that many community and State agencies are undertaking innovative efforts to improve their infant mortality rates. We have received very recently a report on such efforts which I will submit for the record. Promoting and protecting the health of the newborn is the best investment we can make in the future good health of the American people.

Thank you. I will be happy to answer any questions you may have.

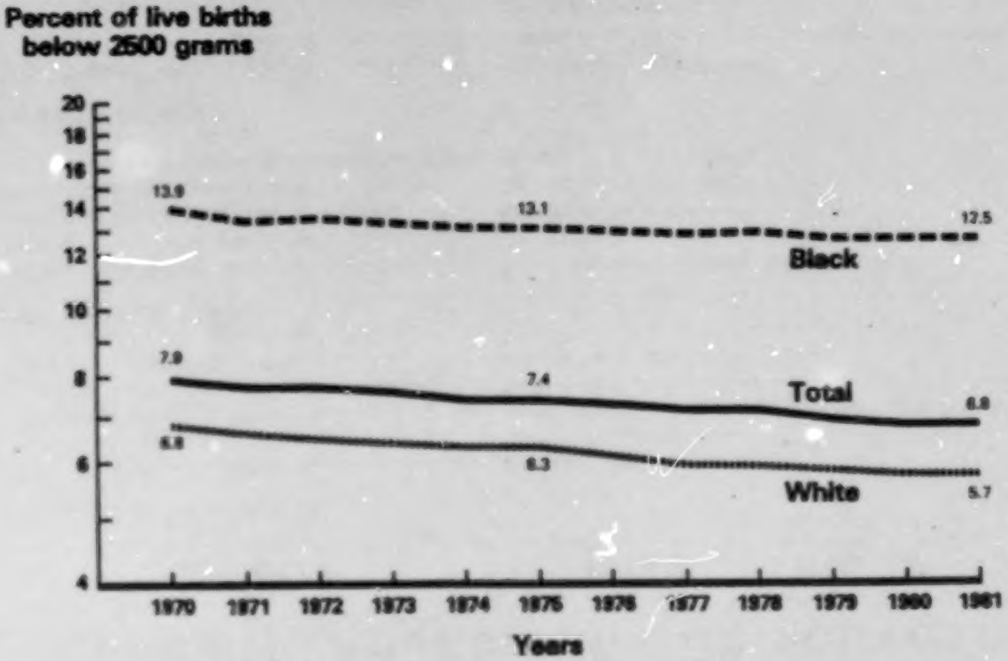
INFANT MORTALITY RATES

1950-83



LOW BIRTH WEIGHT RATIOS

1970-81



Lead HHS Agencies for Objectives

Category	HHS Agency/Office
Preventive Services	
High Blood Pressure Control	National Institutes of Health
Family Planning	Office of Population Affairs
Pregnancy and Infant Health	Health Resources and Services Administration
Immunizations	Centers for Disease Control
Sexually Transmitted Diseases	Centers for Disease Control
Health Protection	
Toxic Agent Control	Senior Advisor for Environmental Health
Occupational Safety and Health	Centers for Disease Control
Accident Prevention and Injury Control	Centers for Disease Control
Fluoridation and Dental Health	Centers for Disease Control
Surveillance and Control of Infectious Diseases	Centers for Disease Control
Health Promotion	
Smoking and Health	Office on Smoking and Health
Misuse of Alcohol and Drugs	Alcohol, Drug Abuse, and Mental Health Administration
Nutrition	Food and Drug Administration
Physical Fitness and Exercise	President's Council on Physical Fitness and Sports
Control of Stress and Violent Behavior	Alcohol, Drug Abuse, and Mental Health Administration

Mr. **Brandt**. At this time, I believe Dr. Davis also has a statement, Mr. Chairman.

Mr. **Waxman**. Ms. Davis?

TESTIMONY OF CAROLYNE K. DAVIS

Ms. **Davis**. I am Carolyne Davis, and I am pleased to be here to join in describing some of the Department's program services. Specifically, I will address the medicaid services for children and pregnant women.

As you know, the Medicaid Program was enacted in 1965 to provide health care for certain groups of low-income people, primarily those already receiving cash assistance. This generally includes members of families with dependent children and the aged, blind, and disabled. In addition, States may choose to pay for the care of those individuals who are medically needy; that is, families who have enough to pay for their basic living expenses but not enough for their medical care.

Currently, there are 20 States and Territories that cover only those individuals receiving cash assistance, and 34 States and Territories that cover both cash assistance and medically needy recipients.

Medicaid's largest eligible group has been children. This commitment to child health continues, and in fiscal year 1982, nearly 10 million children under 21 years of age, constituting 42 percent of all medicaid recipients, received medicaid services costing about $3.6 billion.

Since 1979, these numbers represent a 7-percent increase in the total number of children served by medicaid, and a 25-percent increase in medicaid expenditures for the health care of all eligible children.

In addition, approximately 1.5 million children received medicaid services in 1982 in those States which chose to cover children in poor families, although they were ineligible for AFDC.

Provisions affecting medicaid eligibility under the Omnibus Budget Reconciliation Act of 1981—OBRA—Public Law 97-35, and the Tax Equity and Fiscal Responsibility Act of 1982—TEFRA—Public Law 97-248, have reflected strong continued commitment to maternal and child health.

OBRA gave States increased flexibility to target scarce health resources to those most in need. It also affirmed the program's primary obligation to care for poor pregnant women and children. OBRA did not restrict longstanding State options to cover these groups. States may continue to cover first-time pregnant women for medicaid even though they may be ineligible for AFDC.

Currently, under a number of options, 41 States cover some prenatal care for the most vulnerable women.

Those States which now choose to cover medically needy individuals are required, at a minimum, to pay for ambulatory services, such as physician visits for children and the prenatal and delivery care of pregnant women. Indeed, several States, such as Georgia and Texas, are now considering major program expansions to begin coverage of needy pregnant women and children. Oregon, as of January 1, 1984, added this group.

TEFRA permitted States for the first time to cover certain groups of handicapped children who live at home instead of in an institution. We have had a significant number of requests from States for waivers in this area.

The EPSDT Program is a part of the Medicaid Program which does provide comprehensive preventive health services designed to improve the health status of medicaid-eligible children under 21 years of age.

All States participating in the Medicaid Program are required to provide EPSDT services. The program informs families about preventive health services and offers medical screening as well as diagnostic and treatment services when the need is indicated, referral of eligible recipients to other child health-related programs such as title V, Maternal and Child Health, and services and transportation to and from providers, if requested.

Children must also receive treatment for dental, vision, and hearing problems identified through the EPSDT examination.

Federal guidelines for infant care encourage States to use the recommended timetables and protocols of the American Academy of Pediatrics.

The EPSDT Program provides for improving the health status of children by increasing their access to primary care and it is also geared toward cost containment as a result of early intervention and a systematic use of available health resources.

Last year, Michigan, North Carolina, Ohio, and Virginia reported study results which showed that medicaid expenditures for EPSDT participants were significantly lower than those for nonparticipants. These findings suggest that primary care, when coupled with case management, can reduce the more costly hospital outpatient, emergency, and inpatient use.

In 1982, over 2 million EPSDT assessments were provided to eligible children at an estimated cost of $72 million. This represents a 30-percent increase in the delivery of preventive health screenings since 1979.

In order to insure that the EPSDT Program meets its requirements for providing preventive health care to medicaid eligible children, revisions are even now being made to improve the implementation of the program.

Several interest groups, such as the Children's Defense Fund, State medicaid officials, the American Academy of Pediatrics, and the American Dental Association have assisted us in developing new EPSDT regulations. A notice of proposed rulemaking was signed by Secretary Heckler on August 22, 1983. Final regulations are now in departmental review and should be published soon.

Major changes in proposed EPSDT regulations will incorporate provisions of OBRA and TEFRA, as well as other improvements. States will continue to inform eligibles of the availability of health services, transportation, and scheduling assistance when needed.

New provisions will encourage closer cooperation between States and medical and dental professional groups in setting standards for the EPSDT Program and avoiding program overlaps between medicaid's child health programs and related services provided by other agencies.

A new section on "continuing care provider" is included. This will encourage States to assure that screening services are delivered by a medical professional who is familiar with a child's episodes of acute illness, and who has an ongoing relationship with the family as the regular source of the child's health care. These regulations will also simplify State documentation requirements consistent with the 1981 law.

Medicaid is the largest public health program for children and pregnant women. We are spending more money on services for more needy eligibles than ever before. Recent legislative remedies have provided States with additional flexibility to target their scarce health resources to low-income women and children.

A number of States have responded to this opportunity by planning program expansions. Dr. Brandt has discussed the present array of public health service programs and services addressing infant mortality and morbidity, and these programs as well as nutritional and health services that are outside the Department have indeed been the subject of considerable congressional attention.

Given the amount of interest expressed in the effectiveness of these programs and their impact on infant mortality and the coordination among programs, we believe that it might be useful for the Office of Technology Assessment and the Institute of Medicine to undertake a comprehensive review of these related issues. The results of such an assessment would provide Congress with a substantial information base when it considers program structure and operations.

This administration will continue to work with the Congress in the further development of flexible options for State medicaid coverage of low-income pregnant women and children.

I would be pleased to answer any questions you may have in relation to the testimony.

Mr. WAXMAN. Thank you.

Dr. Brandt, I am very pleased to learn from your testimony that this administration is committed to reducing infant mortality. You state in your testimony that quality prenatal care is an important intervention opportunity in improving pregnancy outcome.

I agree with that. Everyone would agree that prenatal care is important in terms of enhancing the opportunity for a baby to be born well, and to survive that first year. Yet this administration is opposing the only bill that we have before us in this committee that would extend prenatal care services to many women who are poor and who are not now covered by medicaid.

I would like to understand from you how you can rationalize the position of the administration that would deny the opportunity to pregnant women who are not receiving these services.

Mr. BRANDT. First, let me talk about prenatal care one moment, and say that although there is good agreement that prenatal care is important, I think the content of prenatal care is not well-defined. Indeed, at the current IOM committee one of the issues that they are looking at is precisely that; I have a copy of an analysis.

Mr. WAXMAN. I am discussing whether there is going to be any prenatal care—not the quality—for poor, uncovered, pregnant women and infants under the medicaid program.

As you know, there are many States that do not even allow them any kind of prenatal care coverage under medicaid. We are trying to move forward to get States to provide that coverage; yet the administration has opposed that effort.

How can you rationalize that opposition to extending prenatal care, even if it were not the highest quality? I am sure you would agree that any prenatal care is better than no prenatal care.

Mr. **Brandt**. I am not sure I agree with that—I am not going to advocate poor medical care for anything.

Mr. **Waxman**. You are not advocating the lack of prenatal care on a health basis, are you?

Mr. **Brandt**. No, but let me talk about the whole structure that we have in place out there that I think is important, because what the States now have available to them are the following kinds of programs that will assist in the provision of prenatal care.

In the first place, there is the maternal and child health block grant, and the recent GAO draft report indicates that States have chosen by and large to emphasize the delivery of services as their primary priority, a priority that we of course agree with.

Second, we have now entered into agreements with over 30 States toward the placement of community health centers and in addition to that, for the placement of National Service Corps officers, we now use infant mortality data as one of the criteria for their placement. So entering into agreements with States has allowed the States with us to target areas to deliver prenatal care.

Specifics of the bill on the Medicaid Act, I will let Dr. Davis discuss.

Ms. **Davis**. If I may comment on this particular area. You did make a statement that sounded as if there was a number of States that were not covering pregnant women, and I would just like to describe some statistics in relationship to what we know about coverage in the Medicaid Program at this point in time.

Mr. **Waxman**. Before you do that, isn't it the case that if a woman is pregnant for the first time, she is not eligible for medicaid in many States of this country until that child is born? This means she can't get prenatal care until she is eligible for medicaid and she is not eligible for medicaid until she has the baby. In the meantime, she is going through that pregnancy without any prenatal care covered under medicaid.

Is that an accurate statement or not?

Ms. **Davis**. In some States, but the accuracy in terms of the "large number," I would have to debate. There are a few States. My data would indicate that in 24 States, medicaid covers some or all of the prenatal care for women pregnant for the first time who could get the AFDC if the child were born and living with them.

Mr. **Waxman**. There may be seven States—some of them pretty significant. But even if we are only talking about seven States in this country that do not provide prenatal care for a woman because she is not eligible until the baby is born; how could the Reagan administration oppose an effort to give those States incentives to cover their women for prenatal care, if you believe that prenatal care is related to a child's being born healthy?

Ms. **Davis**. If I could comment on the bill, which I know you have sponsored, there are a couple of concerns that relate to that.

One is the idea of giving the State an incentive by paying a 100 percent Federal match to encourage the new coverage. It seems to me to be somewhat inequitable, because you are in effect rewarding the States who have not chosen to cover these groups.

Mr. WAXMAN. I understand, but the problem is that in trying to be fair to the States, we are being unfair to women living in those States who are not going to have prenatal care available to them.

I want to ask about other Federal programs. The administration has asked for cuts in every Federal program that involves the opportunity for prenatal care and health care for infants, with one exception.

I talked about medicaid, trying to expand it. I could also talk about a block grant for unemployed persons in this country that would target services to pregnant women and children.

The administration opposes increasing funding for maternal and child health services. They oppose increases in funding for the community health services.

We see that even in immunizations several years ago, the Reagan administration asked for a cut. And, on and on.

The family planning program—the Reagan administration would like to abolish that completely; let the States or somebody else take care of it if anybody at all wanted to bother with the program.

I am pointing this out to you, because the rhetoric that you use about trying to do something to assure that we are going to have healthy babies is an empty rhetoric. When we look at the record of the Reagan administration, it has asked for cuts in every single health program that is in existence. And for every new initiative where we have asked for some kind of leadership, the Reagan administration has said no.

Ms. DAVIS. I would debate that it is not empty rhetoric. I think it is possible to redesign the limit of the service coverages, and stay within a budget. Our concern, as it relates to support for some of the bills in terms of health insurance for the unemployed, clearly relates to the fact that we believe that the coverage is a little too broad, that some of the bills cover the unemployed when they already have other individual family members——

Mr. WAXMAN. You haven't come in and said you are too broad in your coverage; you are spending too much money; we think you should spend less and do it in the following way——we haven't received any recommendations from the administration along those lines.

We have heard recommendations that we reject all new initiatives and cut all existing programs.

Dr. Brandt, you indicated you think it is important for us to study the whole matter further in order to get some more information. The two areas of the Federal Government where appropriately studies would be conducted are the National Center for Health Statistics and the National Center for Health Services Research. Yet the administration wants to cut by $4 million and $2 million respectively.

How would cuts in those agencies help us learn more about what we need to know before we adopt a new program or make recommendations for changes in policy?

Mr. **Brandt**. Well, in the first place, my testimony was not intended to say that we should do nothing. Indeed, we are doing a great deal at the present time. In fact, I think the record shows quite clearly that that line on infant mortality is straight and coming down, and it has been declining since 1965.

That line has continued unalterably down at roughly 4 percent per year. It is slightly higher for blacks than it is for whites, but not as low as obviously everybody would like.

With respect to gathering additional information, we had not targetted money for the National Center for Health Services Research, but rather for trying to understand the fundamental biological aspects of how to delay the onset of labor, for early onset when the child is not matured, and other aspects of intervention strategy.

The National Center for Health Statistics budget, because of the periodicity of surveys, tends to fluctuate anyway. We will be finishing the Hispanic Hanes at that time, and therefore, their budget will come down.

We have increased funding for our work with the States on vital statistics in order to improve the data on the linkage between birth and death. Let me address comments you made earlier.

We have never proposed to close out family planning. We have proposed the creation of a primary care block grant and my testimony includes, I think, rational, reasonable medical judgment as to why that is a good thing. To deliver family planning in a primary care setting is clearly the desirable thing to do.

Mr. **Waxman**. I will have to move on, but I have a letter signed by the President of the United States that was sent to Senator Orrin Hatch where he expressed regret that the family planning program was not abolished, That is what he at least tried to accomplish.

Mr. **Sikorski**. Will you yield on that point?

Mr. **Waxman**. Yes.

Mr. **Sikorski**. Dr. Brandt, that may be a good idea or not, but the numbers in that program you are trying to blend it into dropped from 162 million to 124 million, and if we talked in real terms, which we always do in the Defense Department, it is going to be a big, big drop.

Now, the proposal is back up to 140, still an absolute cut by $20 million-some, and significantly more if you talk in terms of real terms.

Mr. **Brandt**. I agree that it is a cut; I am not debating that. But it is not abolition. That is my only point.

Mr. **Sikorski**. But it is incredible to talk about how it is going to be so much better if we blend the family program into the other primary activities in the block grant ignoring the dollars associated with those.

Mr. **Waxman**. Mr. Nielson.

Mr. **Nielson**. What other risk factors are involved in low-birth-weight deficiencies. Are there other factors that cause the differences between the white and the black infants?

Mr. **Brandt**. I am not sure of the differences between the white and the black, because when we hold most of the known variables constant, the black incidence is still higher than the white. There are still some things that we do not understand clearly, but the major risk factors for low birth weight are the age of the mother, particularly mothers who are less than 18 or over 35 who have a very high risk of low-birth-weight infants. Smoking during pregnancy and smoking even during the immediate prepregnant period seems to have a significant influence. Alcohol consumption during pregnancy is another factor that results in low-birth weight infants. At the moment we know of no safe alcohol levels that can be consumed during pregnancy. Nutritional status of the mother in prepregnancy as well as her nutritional care during pregnancy and her general state of health, excluding genetic factors that may be family-related, are factors.

Mr. **Nielson**. What are you doing to make these risk factors better known, including smoking, age of mother, and so forth?

Mr. **Brandt**. We have worked with the professional associations making this information widely known to them. We have worked through the healthy mothers, healthy babies campaign to get across to women that they should seek prenatal care as early as possible and that they should clearly quit smoking and not drink during pregnancy. Those programs are underway and I think these are reasonably successful.

Mr. **Nielson**. Some women are apparently reluctant to seek prenatal care for various reasons. What are you doing to encourage them to seek this prenatal care?

Mr. **Brandt**. Largely, of course, it is a public education program that we are addressing. However, again the Institute of Medicine has begun to address some of the other factors that they believe or that at least some scientists believe to be important components. Once we know what those are, we will try to, of course, address them specifically. One factor is the issue of concern about the health care system, bad experiences with the health care system, things of that sort that may very well turn women off; denial of pregnancy which may delay the seeking of prenatal care until late in the pregnancy; other factors like that that we need to understand better. But our current proposal is general public education that says if you are pregnant or if you think you are pregnant you ought to get into a prenatal care program.

Mr. **Nielson**. The congressional representatives suggested the improvements in black infant mortality have "stopped," and they say that is because of reductions in funds for the WIC program and reductions in other Federal programs which might affect maternal and child health. Do you agree with the assessment?

Mr. **Brandt**. No, sir, I do not agree with the implications of the assessment at all. I think at the present time it is difficult to know—that is the so-called widening gap phenomenon that I read in the paper. The largest change in the black and white infant mortality gap that we have reported was between 1975 and 1976. There was a large increase in the black infant mortality rate relative to the white infant mortality rate, one of the largest jumps that we have ever recorded. There were no program changes at that time. Indeed, the changes if any were all quite compatible. We believe and our statisticians believe that this is largely a statistical artifact, that in fact those ratios will fluctuate from time to time. I think the distressing part about it is that the black and white gap is not getting better quickly and that is what we prefer to see, rather than debating whether it is getting worse. Our concern is it is not getting better as rapidly as we think it should. Still, if we project on the base of current data, the black infant mortality rate will come down faster than the white.

Mr. **Nielson**. Secretary Heckler has announced establishment of a task force to review the differences in infant mortality rates between white and black Americans, and generally reporting on the status of health of black Americans. Who is going to be on that task force? Do you know what we may expect on that?

Mr. **Brandt**. The task force will be chaired by Dr. Tom Malone, who is the Deputy Director of NIH and a respected biologist and scientist.

Mr. **Nielson**. What resources will he have available to him?

Mr. **Brandt**. He will have whatever resources he needs to look into this problem. That task force that the Secretary has appointed is to address the—because infant mortality is not the only area where black health status is worse than white health status, and I think if you simply review our 1983 version of health status U.S., you will see this scattered throughout. His charge is much more broad. The members of that committee will be decisionmakers in the Department. I am not sure that the exact membership has as yet been named, but I will be delighted to send it to you when it is available.

Mr. **Nielson**. Mr. Chairman, would the subcommittee allow him to submit the names of that task force?

Mr. **Leland**. Yes, without objection.

Mr. **Nielson**. How can we assure effective prenatal care is given to those with the greatest risk? In other words, how can we channel it to those who have the greatest risk? Is there some way you can do that within the budget you have now?

Mr. **Brandt**. I think the secret to trying to channel prenatal care to women who are at highest risk is first that you have to be able to identify them and second the programs have to be locally based. If one looks at the distribution of the problem around the country, there are certain geographic areas where there is a significantly more severe problem. Mr. Leland and I happen to know about one activity in Houston that I was involved in; it is clear that in the city of Houston there is an area where infant mortality is strikingly higher than it is in the rest of the city, and that is where resources have to be targeted and pushed. There has to be a significant attempt to get women to make use of those facilities when these are available to them. We with State and local health officers will continue to identify those areas and we will assist them in any way we can to target the resources to those people.

Mr. **Nielson**. In your opinion is that a Federal or a State and local responsibility?

Mr. **Brandt**. In my opinion it is a shared responsibility, but it has to primarily be a State and local responsibility because they are the ones that can identify the areas and have control over the resources to go to that problem. But it is clear that the Federal Government has responsibility in that as well.

Mr. **Nielson**. I would like to ask Dr. Davis a question. Dr. Davis, can you tell us a little more about the early and periodic diagnosis treatment program under medicaid? Have the preventive health services provided under the program been effective in reducing hospital admissions or intensive services?

Ms. Davis. Yes; the program is designed to have four phases. It is an outreach program, a health education program, a screening program, and a case management program. In terms of the kinds of success stories that we have seen we have found that of the eligible children who are participating in the EPSDT program—about 9 million were eligible in 1982—10 percent were enrolled in what we call continuing care, about 25 percent were receiving periodic examinations, and about 45 percent were under some type of health supervision. The examinations simply were not due that particular year because of the periodicity of them.

I think the most encouraging part of all this is that some studies that have been published from some of the various States, most notably Michigan, North Carolina, Ohio, and Virginia, have reported that there is indeed a cost-benefit to these kinds of programs. The medicaid expenditures for EPSDT participants are significantly lower than those who do not participate.

Mr. Nielson. Mr. Chairman, is Dr. Taylor going to be available for questions? I had a question for him.

Mr. Leland. Yes, he will.

Mr. Nielson. I would like to reserve time when he gets back.

Mr. Leland. Mr. Brandt, you mentioned that one of the means by which we can solve this problem of infant mortality is of course more education. How much money is the administration actually spending for the education of women in the area of prenatal care?

Mr. Brandt. I do not have an exact figure, Mr. Leland. I can try to find that out. It is so mixed up with all the other expenditures it is hard to know, but I think it is important to point out that we are not the only actor in this nor should we be. As I pointed out, the major component of the educational program going on around the country right now is the healthy mothers, healthy babies campaign, involving 60-some organizations, all of whom are contributing. It includes professional organizations. I have a list of those that are involved. For example, the National Medical Association is involved, the national PTA, and other kinds of groups that are directed towards getting the information to women at high risk.

Mr. Leland. Mr. Brandt, the Chair will hold the record open for you to submit the answer to that question and also any other related materials you wish to submit.

Mr. Brandt. Fine. [See correspondence beginning on p. 275.]

Mr. Leland. The Chair is disturbed that you are not able to tell us about how much—at least a ballpark figure—the administration is spending and. I feel the Federal Government has a moral responsibility to lead those people and those organizations who are interested in trying to resolve this problem. It is a very, very severe problem.

Mr. Brandt. Mr. Leland, I am sorry you are distressed I don't have that figure, but I think it is important we measure programs by effectiveness, not just dollars in the first place.

In the second place, I think the Federal Government——

Mr. Leland. Let me stop you right there, you say we should measure programs by the effectiveness and not by dollars

Mr. **Brandt**. Not just by dollars, correct.

Mr. **Leland**. The fact is that while we see some progress in lessening the infant mortality rate, you indicated that the black infant mortality rate, though it is on the decline, is higher than the white mortality rate.

I am particularly concerned, Dr. Brandt, that what you are alluding to is that the problem is not as serious as what is actually indicated. When you cut dollars out of programs which have been deemed cost effective, like WIC—don't you agree that WIC has been one of the most effective, cost efficient programs that has ever been instituted by the Federal Government?

Mr. **Brandt**. It is certainly an important program. I have never seen, one way or the other, data on its cost effectiveness:

Mr. **Leland**. Three years ago, we heard consistently that the WIC program was the most cost effective Federal program that has ever been realized. WIC was under consideration for cuts then. At the beginning of this administration, President Reagan advocated cutting the program so severely that it might have been dissolved. Because of the public outrage about that potential, WIC was restored.

Mr. **Brandt**. Well, again, Mr. Leland, if you look at the curve as it goes down, you will see that it is independent of which administration is in power. If you put up there an arrow when the WIC program was introduced, you don't see any change in the infant mortality rate. That is not to suggest that it has not had some effect, but I think to try to look at single issues and try to relate them to a significant drop in the infant mortality rate is not going to happen until we find that pattern of interventions that are aimed at both the low birth weight problem and the reduction of congenital anomalies.

That knowledge is not here. That is what it boils down to. We are doing the things that you are suggesting be done, and we are agreeing with them. We do consider this important. I can guarantee that if there were any way to drop that line to zero right now, I would be more than delighted to try to do something with it.

That is one of the reasons why we have proposed that we go to the Institute of Medicine or the Office of Technology Assessment and let them do an independent assessment of all of the programs that are underway. Because programs aimed at infant mortality go across almost the entire Executive branch.

There are programs in agriculture, WIC and food stamps and others; there are programs certainly even in the Defense Department where they have programs aimed at reduction of infant mortality among our service families and their dependents.

So it is not a simple problem nor is it one that is not high priority. We are looking for a way to make that drop at a faster rate, but the drop is continuing. The only time that——

Mr. **Leland**. But, Dr. Brandt, the drop is not continuing fast enough. You know that the fact of the matter is we know some of the programs have been severely hurt and people have not been able to receive the kinds of aid that they need. You talked about education, very definitely there is not enough education occurring particularly in the black community.

You say that there is a small drop—and I don't mean to be personal, but I detect a somewhat cavalier attitude about that and I am disturbed. This administration continues to cut those very vital programs that are helping the poor people of our Nation. We don't see a sharp drop in the infant mortality rate, not just in the black community but in the white community, because of these severe cuts.

Mr. **Brandt**. I fully agree with you that we have not seen a sharp drop in the infant mortality rate. We have not seen that since 1965. Go back to whatever period you want; when you are talking about program funding you see exactly the same changes in the infant mortality rate that you see today. The reason that we are not going to see a sharp drop in the white, the black, or the total infant mortality rate is that until we know what series of interventions to go out there and do——

Mr. **Leland**. How long do we have to study the problem then? You are advocating more studies for the problem. You are saying since 1965 we have not realized a sharp drop. How long do we have to continue to study the problem?

Mr. **Brandt**. If I knew how long it took us to learn, I would be in a better position than I am. I am not cavalier about this, and you and I have known each other for a long time, and you know that I am not.

Mr. **Leland**. You have a different position now than you had then, and you were much more aggressive then than you are now.

Mr. **Brandt**. Yes, I guess so.

In any event, I don't know how long, but it is critical that we—when we go out and into the community health centers and on the Indian reservations and the places where we deliver care—and we deliver it according to the ACOG standards—you will see we are reducing the infant mortality rate in those populations like the rest of the country.

I think the point is that, given that women enter prenatal care very early in their pregnancy and continue all the way through, the specific kinds of interventions other than the treatment of recurrent illness, other than maintenance of good nutrition, et cetera, is just not well defined. Until we know what other things to do, I don't think we are going to see that sharp drop.

Now, if somebody knows what that ought to be, I think they need to share that with the scientific community so that we can implement it, and we will implement it.

Mr. **Leland**. The real issue is whether we are doing all that we know how to do. In fact infant mortality, as you have alluded, is a solvable problem. But the fact is that, in my district, Houston, with one of the most affluent communities and also one of the best, if not the best, medical center, black women are still suffering from delivering high-risk babies, and we have not begun to utilize the resources available to them in order to try to decrease the rate of infant mortality.

It bothers me and—I guess it is a question of priorities. I realize you, Dr. Brandt, and particularly you, Dr. Davis, have to deal with the reality of budgets. But you also must deal with the interconnections with what we spend in one area as opposed to other areas. The question of priorities is a very, very high concern of mine.

The President was advocating an 18 percent real increase on military defense, and yet we see decreases in programs like WIC and other programs to help poor and middle-income women to deliver healthy babies. Where is our real priority in terms of our investment for the future?

I don't want to monopolize the time. I know the gentleman from Minnesota has some questions, and I will yield to him now.

Mr. SIKORSKI. Thank you, Mr. Chairman.

Dr. Brandt, I think you stated that this administration has adopted certain goals for 1990 for infant mortality, low-birth weight and receipt of prenatal care, is that correct?

Mr. BRANDT. Yes.

[Testimony resumes on p. 146.]

[The following information was submitted:]

PROMOTING HEALTH
PREVENTING DISEASE

Objectives for the Nation

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES PUBLIC HEALTH SERVICE

PREGNANCY AND INFANT HEALTH

1. Nature and Extent of the Problem

Assuring all infants a healthy start in life and enhancing the health of their mothers are among the highest priorities in preventing disease and promoting health. The principal threats to infant health are problems associated with low birth weight and birth defects which can lead to lifelong handicapping conditions. Of particular concern are the disparities in the health of mothers and infants that exist between different population groups in this country. These differences are associated with a variety of factors, including those related to the health of the mother before and during pregnancy as well as parental socioeconomic status and lifestyle characteristics. Although the precise relationship between specific health services and the health status of pregnant women and their infants is not certain, the provision of high quality prenatal, obstetrical, and neonatal care, and preventive services during the first year of life, can reduce a newborn's risk of illness and death. Of particular concern are adolescents, whose infants experience a high degree of low birth weight and whose health problems should be addressed in a broad context taking into consideration social and psychological implications.

a. Health Implications

- Maternal and infant mortality and morbidity records show striking demographic variations:
  - — an overall rate of maternal mortality of 9.6 per 100,000 live births in 1978, but with a rate for blacks almost four times that for whites;
  - — an infant mortality rate of 13.8 per 1,000 live births in 1978, but with the infant mortality rate for black babies 92 percent higher than for whites;
  - — infant mortality rates for individual States ranged from 10.4 to 18.7 in 1978;
  - — infant mortality rates in 1977 for 26 major cities (with populations greater than 500,000) ranged from 10.0 to 27.4; 22 of the 26 major cities had higher rates than the National average of 14.1 in 1977.
- The greatest single problem associated with infant mortality is low birth weight; nearly two-thirds of the infants who die are low birth weight.
- Maternal factors associated with a high risk of low birth weight babies are: age (17 and under, and 35 and over), minority status, high parity, previous unfavorable pregnancy outcome, low education level, low socioeconomic status, inter-pregnancy interval less than 6 months, inadequate weight gain during pregnancy, poor nutrition, smoking, misuse of alcohol and drugs and lack of prenatal care.
- High quality early and continuous prenatal, birth and postnatal care can decrease a newborn's risk of death or handicap from pregnancy complications, low birth weight, maternal infection from sexually transmitted disease and developmental problems, both physical and psychological.
- After the neonatal period the causes of infant mortality and morbidity, many of which may be preventable, are: disorders related to a high risk birth, infectious diseases, congenital anomalies, accidents, lack of health care and abuse.

b. Status and trends

- Although the overall rate has been gradually improving since 1965, an excessive number of infants born in the United States are of less than optimal birth weight for survival and good health. This includes:
  - — approximately 7 percent of all babies are of low birth weight, that is, 2,500 grams or less; the rate is almost twice as high for blacks; other industrialized nations experienced substantially lower rates during the period 1970-1976; for example in Japan 5.3 percent of births were low birth weight and in Sweden 4.1;
  - — approximately another 17 percent of all newborns in the United States in 1978 had birth weights falling between 2,501 and 3,000 grams.
- Many children in the United States are born to women who have an increased risk of having a low birth weight infant or other health problems, particularly:
  - — the 25 percent of women giving birth in 1978 who made no prenatal visit during the first trimester and the 5 percent who had no prenatal care during either of the first two trimesters;

- the pregnant teenagers (at higher risk for low birth weight babies) who accounted for 17 percent of the infants born in 1978;
- the two-thirds of pregnant teenagers in 1976 whose pregnancies were not intended when they occurred;
- the births to single women (26.2 births per 1,000 single women in 1978) for whom the data indicate special risk of poor health outcomes for mother and infant.

2. Prevention/Promotion Measures

a. Potential measures

- Education and information measures include:
  - developing, implementing and evaluating the quality and quantity of health education curricula in schools and communities, with emphasis on lifestyle risk factors (poor nutrition and use of alcohol, cigarettes and drugs), as well as family life and parenting;
  - developing, implementing and evaluating preventive educational strategies and materials for use in private and public prenatal care;
  - increasing the use of mass media to encourage more healthful lifestyles; developing television and radio programs that support healthful lifestyles;
  - making prospective parents at high risk of impaired fetuses aware of genetic diagnosis and counseling services so that those affected can make informed decisions consistent with their personal ethical and religious values;
  - promoting, educating and supporting breastfeeding where possible.
- Service measures include:
  - family planning services which optimize the timing of pregnancies;
  - prenatal care which routinely includes education on avoidable risks to maternal and fetal health during pregnancy;
  - assuring that all populations are served by organized medical care systems that include providers (physicians, nurse practitioners, nurse midwives, nutritionists and others) who are trained to deliver prenatal, postnatal and infant care on site (requires personnel strategies and economic and professional incentives);
  - developing local, easily accessible prenatal services for all, including access to amniocentesis for high risk pregnant women;
  - regionalizing prenatal and perinatal services so that all women and newborns receive diagnostic and therapeutic care appropriate to their assessed needs;
  - assuring adequate linkages, including transportation, to regional centers for high risk expectant mothers and newborns;
  - outreach perinatal and infant care services for currently underserved populations, such as teenage expectant mothers;
  - evaluating the quality of perinatal and infant care being received and relating program activities to pregnancy and infant health outcomes;
  - identifying and tracking infants and families with medical, congenital, psychological, social, and/or environmental problems;
  - reducing the number of low birth weight infants by reducing teenage and other high risk pregnancies, reducing damaging effects from alcohol, cigarettes and other toxic substances, improving nutrition, and assuring participation in comprehensive preconceptional, inter-conceptional and early and continuing prenatal care;
  - eliminating unnecessary radiation exposure to pregnant women and babies;
  - assuring that all programs of primary care support and contribute to the fulfillment of objectives related to maternal and infant health;
  - encouraging parent support groups, hotlines, and counseling for parents of high risk infants and supports for lowering stress levels in troubled parents who may have potential for child abuse.
  - See Family Planning, Immunization, and Sexually Transmitted Diseases.
- Legislative and regulatory measures include:
  - requiring that all Federally funded programs for delivering perinatal care assure adequate health and prenatal education, screening for pregnancy risks and patient plans for care during labor and delivery appropriate to discovered risks, and for infant follow-up and care through the first year of life;
  - requiring fiscal and pregnancy outcome accountability in publicly funded prenatal and perinatal programs;
  - reducing exposures to toxic agents that may contribute to physical handicaps or cognitive impairment of babies.
- Economic measures include:
  - reviewing all programs that finance or provide health services for mothers and children in order to:
    - assure inclusion of health promotion and preventive services;
    - optimize their effect by reducing overlaps, pockets of neglect and contradictory objectives;
  - adequate public financing for outreach, early and continuous prenatal care, deliveries, support services, intensive care when needed and continuing care of infants;

- consideration of direct Federal financing tied to uniform standards of performance where public health departments show potential for expanding maternal and child health services to populations in need.

b. Relative strength of the measures

- The relative effectiveness of various interventions to improve pregnancy outcome and infant health is not without controversy. The records of many demonstration projects, both domestic and foreign, amply confirm that dramatic improvements can be made in the indicators of maternal and infant health. For example, the infant mortality rate for American Indians was reduced by 74 percent between 1955-1977 and maternal mortality decreased from 2.2 times the total U.S. rate in 1958, to below the total U.S. rate by 1975-76. Unfortunately, studies have not generally been designed to yield firmly defensible data on the relative contribution of programs. However, the evidence indicates that emphasis be placed on family planning which optimizes the timing of pregnancies, early identification of pregnancy and routine involvement of all pregnant women in prenatal care. Therefore the following priorities are strongly suggested:

- systems of care that reach everyone with basic services, emphasizing advantageous personal health behavior and including outreach, education, and easy access to community-based services without social, economic, ethnic or time or distance barriers;
- measures which prevent unwanted pregnancies and which optimize the most favorable maternal age for childbearing, including sex education, contraception, easy access to pregnancy testing, genetic counseling, prenatal diagnosis and associated counseling;
- early and continuing prenatal care, particularly for those at greatest risk—poor, poorly educated women, those near the beginning or the end of their reproductive age, those with previous pregnancy loss and those with recent pregnancy;
- nutrition education and food supplementation as needed, as well as parent education on importance of good infant nutrition, preventive measures essential to avoid childhood disease and accidents and parenting conducive to sound emotional development;
- cessation of smoking during pregnancy (which may contribute much more to the improvement of birth weight and to favorable pregnancy outcome than is now fully documented);
- regionalized programs of care with referral system which assure access to levels of care appropriate to special risks.

3. Specific Objectives for 1990

- Improved health status

a. By 1990, the National infant mortality rate (deaths for all babies up to one year of age) should be reduced to no more than 9 deaths per 1,000 live births. (In 1978, the infant mortality rate was 13.8 per 1,000 live births.)

b. By 1990, no county and no racial or ethnic group of the population (e.g., black, Hispanic, Indian) should have an infant mortality rate in excess of 12 deaths per 1,000 live births. (In 1978, the infant mortality rate for whites was 12.0 per 1,000 live births; for blacks 23.1 per 1,000 live births; for American Indians 13.7 per 1,000 live births; rate for Hispanics is not yet available separately.)

c. By 1990, the neonatal death rate (deaths for all infants up to 28 days old) should be reduced to no more than 6.5 deaths per 1,000 live births. (In 1978, the neonatal death rate was 9.5 per 1,000 live births.)

d. By 1990, the perinatal death rate should be reduced to no more than 5.5 per 1,000.* (In 1977, the perinatal death rate was 15.4 per 1,000.)

*NOTE: The perinatal death rate is total deaths (late fetal deaths over 28 weeks gestation plus infant deaths up to 7 days old) expressed as a rate per 1,000 live births and late fetal deaths.

e. By 1990, the maternal mortality rate should not exceed 5 per 100,000 live births for any county or for any ethnic group (e.g., black, Hispanic, American Indian). In 1978, the overall rate was 9.6—the rate for blacks was 25.0, the rate for whites was 6.4, the rate for American Indians was 12.1; the rate for Hispanics is not yet available separately.)

f. By 1990, the incidence of neural tube defects should be reduced to 1.0 per 1,000 live births. (In 1979, the rate was 1.7 per 1,000.)

g. By 1990, Rhesus hemolytic disease of the newborn should be reduced to below a rate of 1.3 per 1,000 live births. (In 1977, the rate was 1.8 per 1,000.)

*h. By 1990, the incidence of infants born with Fetal Alcohol Syndrome should be reduced by 25 percent. (In 1977, the rate was 1 per 2,000 births or aproximately 1,650 cases.)

*NOTE: Same objective as for Misuse of Alcohol and Drugs.

— See Nutrition.

- Reduced risk factors

i. By 1990, low birth weight babies (2,500 grams and under) should constitute no more than 5 percent of all live births. (In 1978, the proportion was 7.0 percent of all births.)

j. By 1990, no county and no racial or ethnic group of the population (e.g., black, Hispanic, American Indian) should have a rate of low birth weight infants (prematurely born and small-for-age infants weighing less than 2,500 grams) that exceeds 9 percent of all live births. (In 1978, the rate for whites was about 5.9 percent, for Indians about 6.7 percent, and for blacks about 12.9 percent; rates for Hispanics are not yet separately available, rates for some other nations are 5 percent and less.)

k. By 1990, the majority of infants should leave hospitals in car safety carriers. (Baseline data unavailable.)

— See Nutrition, Family Planning, Smoking and Health, Misuse of Alcohol and Drugs, Sexually Transmitted Diseases, Immunization, Occupational Safety and Health, Toxic Agent Control, and Accident Prevention and Injury Control.

- Increased public/professional awareness

l. By 1990, 85 percent of women of childbearing age should be able to choose foods wisely (state special nutritional needs of pregnancy) and understand the hazards of smoking, alcohol, pharmaceutical products and other drugs during pregnancy and lactation. (Baseline data unavailable.)

— See Nutrition, Smoking and Health, Misuse of Alcohol and Drugs, Sexually Transmitted Diseases, Immunization, Occupational Safety and Health, and Toxic Agent Control.

- Improved services/protection

m. By 1990, virtually all women and infants should be served at levels appropriate to their need by a regionalized system of primary, secondary and tertiary care for prenatal, maternal and perinatal health services. (In 1979, approximately 12 percent of births occurred in geographic areas served by such a system.)

n. By 1990, the proportion of women in any county or racial or ethnic groups (e.g., black, Hispanic, American Indian) who obtain no prenatal care during the first trimester of pregnancy should not exceed 10 percent. (In 1978, 40 percent of black mothers and 45 percent of American Indian mothers received no prenatal care during the first trimester; percent of Hispanics is unknown.)

o. By 1990, virtually all pregnant women at high risk of having a fetus with a condition diagnosable *in utero*, should have access to counseling and information on amniocentesis and prenatal diagnosis, as well as therapy as indicated. (In 1978, about 10 percent of women 35 and over received amniocentesis. Baseline data are unavailable for other high risk groups.)

p. By 1990, virtually all women who give birth should have appropriately-attended, safe delivery, provided in ways acceptable to them and their families. (In 1977, less than .3 percent of births were unattended by a physician or midwife. Furthermore, of births which are attended by a physician or midwife, an unknown share are not considered satisfactory by the women or their families.)

q. By 1990, virtually all newborns should be provided neonatal screening for metabolic disorders for which effective and efficient tests and treatments are available (e.g., PKU and congenital hypothyroidism). (In 1978, about 75 percent of newborns were screened for PKU; about 3 percent were screened for hypothyroidism in the early 1970's, with the rate now rapidly increasing.)

r. By 1990, virtually all infants should be able to participate in primary health care that includes well child care; growth development assessment; immunization; screening, diagnosis and treatment for conditions requiring special services; appropriate counseling regarding nutrition, automobile safety, and prevention of other accidents such as poisonings. (Baseline data unavailable.)

— See Nutrition, Immunization, Accident Prevention and Injury Control.

- Improved surveillance/evaluation systems

s. By 1990, a system should be in place for comprehensive and longitudinal assessment of the impact of a range of prenatal factors (e.g., maternal exposure to radiation, ultrasound, dramatic temperature change, toxic agents, smoking, use of alcohol or drugs, exercise, or stress) on infant and child physical and psychological development.

4. Principal Assumptions

- Assurances of participation in essential services will be enhanced by various programs of outreach and by communication with client groups to achieve styles of service that are appropriate and acceptable to different populations, and by initiating or expanding publicly sponsored programs of care as may be necessary for people who are not reached by private and traditional provider systems.
- Current efforts to ensure an adequate supply of food will be continued and extended (WIC and food stamps).
- Information will be routinely provided to pregnant women on serum alphafetoprotein screening; screening will be provided for medical, obstetric, psychosocial and genetic risks, and participation assured in appropriate levels of diagnosis, support and treatment.
- Prenatal care will routinely include education on avoidable risks to maternal and fetal health during pregnancy, and to infant health following birth.
- Perinatal and infant care will include but not be limited to:
  - — nutritional education and supplementation as

needed, including preparation and support for breastfeeding (See Nutrition);
- — psychosocial supports which promote parenting behavior conducive to parent-child attachment;
- — promotion of lifestyles that encourage good parental, infant and child health practices;
- — linkages that assure antenatal identification of risks, risk reduction activities and completed plans for participation in appropriate intrapartum and continuing infant care;
- — provision of Rhesus immune globulin to all Rh negative women, not previously sensitized, who have a known or presumed Rh positive pregnancy.

- Achieving objectives that deal with mortality and low birth weight presumes participation in comprehensive services that will also work to reduce maternal and infant morbidity associated with lifestyle and environmental risks, including:
  - — alcohol and drug use;
  - — smoking;
  - — management of parental stress;
  - — toxic substances during pregnancy and lactation;
  - — occupational safety and health;
  - — prevention of infant and child accidents;
  - — See Misuse of Alcohol and Drugs, Smoking and Health, Control of Stress and Violent Behavior, Toxic Agent Control, Occupational Safety and Health, Accident Prevention and Injury Control.
- Reduction of unwanted and unintended pregnancies will achieve reduction of pregnancies in teenage and late childbearing years, and will concentrate childbearing during optimum maternal ages. Efforts to reduce unwanted pregnancies are presumed to provide for:
  - — education on sex, family life and reproductive health;
  - — ready access to all forms of family planning services;
  - — ready access to pregnancy testing, with associated counseling and referral;
  - — See Family Planning.
- All needful infants and families will participate in support services (e.g., food supplementation, income supports, day care, minimum housing) that are defined by National standards which assure equity.
- All pregnant women will have access to regionalized systems of maternity care which assure services appropriate to need.
- Agencies receiving public funds related to health care—including Federal, State and local units of government, private agencies, and quasi-public agencies such as HSAs—will adopt these or more stringent objectives, and will document their progress toward meeting them.

5. Data Sources

a. To National level only

- Health Interview Survey (HIS). Smoking and drinking prevalence among women of childbearing age. DHHS-NCHS. NCHS *Vital and Health Statistics*, Series 10, selected reports, and NCHS *Advance Data from Vital and Health Statistics*, selected reports. Continuing household interview survey; National probability samples.
- Hospital Discharge Survey (HDS). Deliveries in hospital. DHHS-NCHS. NCHS *Vital and Health Statistics*, Series 13, selected reports. Continuing survey. National probability sample of short-stay hospitals.
- National Ambulatory Care Survey (NAMCS). Visits to private physicians for prenatal care. DHHS-NCHS. NCHS *Vital and Health Statistics*, Series 13, selected reports. Continuing survey; National probability sample office-based physicians.
- National Reporting System for Family Planning Services (NRSFPS). Visits to family planning clinics. DHHS-NCHS. Annual Reports. Continuous sample survey since June 1977; continuous full count reporting from 1972 to June 1977.
- National Natality Follow Back Survey. Selected data from 1964-66 Follow Back. NCHS *Vital and Health Statistics*, Series 22. Survey of mothers with legitimate live births; sample of birth records.
- 1980 National Natality Survey/1980 National Fetal Mortality Survey. Birth and fetal deaths by numerous characteristics not available from the Vital Registration System. DDHS-NCHS. Currently in the field. Public use data tapes will be available from the survey. National sample survey.
- National Survey of Family Growth (NSFG). Characteristics of women of childbearing age. DHHS-NCHS . . . NCHS *Vital and Health Statistics*, Series 23, selected reports, and *Advance Data from Vital and Health Statistics*, selected reports. Periodic surveys at intervals of several years; National probability sample.

b. To State and/or local level

- National Vital Registration System
  - — Natality: Births by age, race, parity, marital status. Most States also have number of prenatal visits, timing of first prenatal visit, educational level of mother, sometimes of father. DHHS-NCHS. NCHS *Vital Statistics of the United States*. Vol. 2, and *Monthly Vital Statistics Reports*, Series 21. Continuous reporting by States; full count of birth certificates 38 States, 50 percent sample sample remaining States. (Many States issue their own earlier reports).
  - — Mortality. Deaths (including infant and fetal

deaths) by age at death, sex, race. Some States link mortality and natality thus making full natality data available. DHHS-NCHS. *Vital Statistics of the United States,* Vol. 1, parts A and B; and NCHS *Monthly Vital Statistics Report* by States, Series 21, selected reports. Continuous reporting by States, all events. (Many States issue their own earlier reports.)

- Hospitalized illness discharge abstract systems.
  - — Professional Activities Study (PAS). Patients in short stay hospitals; patient characteristics, deliveries, diagnoses of congenital anomolies, procedures performed, length of stays. Commission on Professional and Hospital Activities, Ann Arbor, Michigan. Annual reports and tapes. Continuous reporting from 1900 CPHA member hospitals; not a probability sample, extent of hospital participation varies by State.
  - — Other hospital discharge systems as locally available.
  - — Selected health data. DHHS-NCHS. NCHS *Statistical Notes for Health Planners.* Compilations and analysis of data to State level.
- Area Resource File (ARF). Demographic, health facility and manpower data at State and county level from various sources. DHHS-Health Resources Administration. *Area Resource File—a Manpower Planning and Research Tool,* DHHS HRA-80-4, Oct 79. One time compilation.

HEALTHY PEOPLE

The Surgeon General's Report On Health Promotion And Disease Prevention

1979

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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CHAPTER 3

HEALTHY INFANTS

Goal: To continue to improve infant health, and, by 1990, to reduce infant mortality by at least 35 percent, to fewer than nine deaths per 1,000 live births.

Much has happened in recent years to make life safer for babies. The infant mortality rate now is only about one-eighth of what it was during the first two decades of the century (Figure 3-A) thanks to better nutrition and housing, and improved prenatal, obstetrical, and pediatric care. In 1977, a record low of 14 infant deaths per 1,000 live births was achieved, a seven percent decrease from the previous year.

Yet, despite the progress, the first year of life remains the most hazardous period until age 65, and black infants are nearly twice as likely to die before their first birthdays as white infants. The death rate in 1977 for black infants (24 per 1,000 live births) is about the same as that for white infants 25 years ago.

Additional gains are clearly attainable. Sweden, which has the lowest rate of infant deaths, averages nine per 1,000 live births (Figure 3-B). If present trends in the United States continue, our rate should drop below 12 in 1982, and new preventive efforts could allow us to reach the goal of nine by 1990.

The two principal threats to infant survival and good health are low birth weight and congenital disorders including birth defects (Figure 3-C). Accordingly, the two achievements which would most significantly improve the health record of infants would be a reduction in the number of low birth weight infants and a reduction in the number born with birth defects.

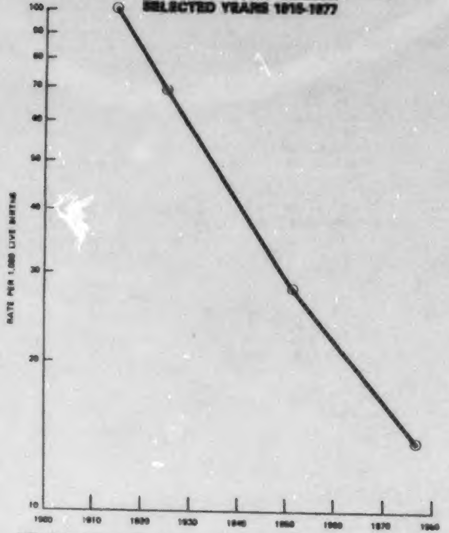
Other significant health problems include birth injuries, accidents, and the sudden infant death syndrome which may be the leading cause of death of infants older than one month.

But not all health problems are reflected in mortality and morbidity figures. It is also important to foster early detection of developmental disorders during the first year of life to maximize the benefits of care. And the first year is a significant period for laying the foundation for sound mental health through the promotion of loving relationships between parents and child.

Subgoal: Reducing the Number of Low Birth Weight Infants

Low birth weight is the greatest single hazard for infants, increasing vulnerability to developmental problems—and to death.

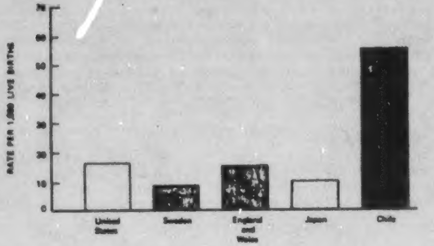
FIGURE 3-A
INFANT MORTALITY RATES: UNITED STATES, SELECTED YEARS 1915-1977



NOTE: 1977 data are provisional; data for all other years are final. Selected years are 1915, 1925, 1950, 1977.

Source: National Center for Health Statistics, Division of Vital Statistics.

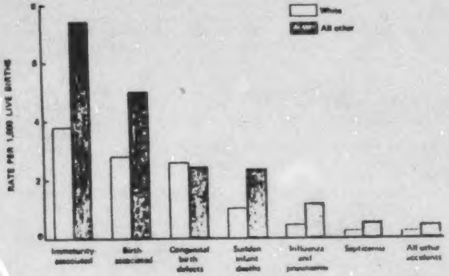
INFANT MORTALITY RATES: SELECTED COUNTRIES, 1975



NOTE: The most recent year of data for Chile is 1971.

Sources: United States, National Center for Health Statistics, Division of Vital Statistics; other countries, United Nations.

FIGURE 3-C
MAJOR CAUSES OF INFANT MORTALITY: UNITED STATES, 1976



Source: Based on data from the National Center for Health Statistics, Division of Vital Statistics

Of all infant deaths, two-thirds occur in those weighing less than 3.5 pounds (2500 grams) at birth. Infants below this weight are more than 20 times as likely to die within the first year.

Low birth weight is sometimes associated with increased occurence of mental retardation, birth defects, growth and development problems, blindness, autism, cerebral palsy and epilepsy.

In the United States in 1976, about seven percent of all newborns weighed less than 3.5 pounds. In Sweden, however, the figure was four percent. The difference probably explains Sweden's more favorable infant mortality experience. Because substantial reductions in infant mortality and childhood illness could be expected to follow any significant reductions in the number of infants of low birth weight in this country, that should be a major public health goal.

Many maternal factors are associated with low infant birth weight: lack of prenatal care, poor nutrition, smoking, alcohol and drug abuse, age (especially youth of the mother), social and economic background, and marital status.

Given no prenatal care, an expectant mother is three times as likely to have a low birth weight child.

And many women least likely to receive adequate prenatal care are those most likely to have other risk factors working against them.

Women from certain minority groups are half as likely as white women to receive the minimum of prenatal care recommended by the American College of Obstetrics and Gynecology. About 70 percent of expectant mothers under age 15 receive no care during the first months of pregnancy, the period most important to fetal development; 25 percent of their babies are premature, a rate three times that for older mothers.

The lower risk with regular prenatal care may result from the benefits of medical and obstetrical services—and from accompanying social and family support services.

Infants born to women experiencing complications of pregnancy such as toxemia* and infections of the uterus have a four to five times higher mortality rate than others. For mothers with such medical conditions as diabetes, hypertension, or kidney and heart disease, there is a higher risk of bearing babies who will not survive their first year—a risk which competent early medical care can reduce.

Maternal nutrition is a critical factor for infant health. Pregnant women lacking proper nutrition have a greater chance of bearing either a low birth weight infant or a stillborn. Diet supplementation programs—especially those providing suitable proteins and calories—materially increase the likelihood of a normal delivery and a healthy child, and attention to sound nutrition for the mother is a very important aspect of early, continuing prenatal care.

Also hazardous for the child are maternal cigarette smoking and alcohol consumption. Smoking slows fetal growth, doubles the chance of low birth weight, and increases the risk of stillbirth. Recent studies suggest that smoking may be a significant contributing factor in 20 to 40 percent of low weight infants born in the United States and Canada. Studies also indicate that infants of mothers regularly consuming large amounts of alcohol may suffer from low birth weight, birth defects, and/or mental retardation. Clearly, both previously developed habits need careful attention during pregnancy.

Maternal age is another determinant of infant health. Infants of mothers aged 35 and older have greater risk of birth defects. Those of teenage mothers are twice as likely as others to be of low birth weight. And subsequent pregnancies during adolescence are at even higher risk for complications. Family planning services, therefore, are important—and, for pregnant adolescents, good prenatal care, which can improve the outcome, is receiving increased emphasis in many communities.

Racial and socioeconomic groups show great disparity in low birth weight frequency. Not only is infant mortality nearly twice as high for blacks as for whites, prematurity and low birth weight are also twice as common for blacks and some other minorities.

Evidence indicates that the racial differential is associated with corresponding socioeconomic differences. Analyses of birth weight distribution according to socioeconomic status among homogeneous ethnic populations reveal a clear relationship between birth weight and social class; the birth weight of black infants of higher socioeconomic status is comparable to that of whites.

Marital status is another important factor. In 1975, the risk of having a low birth weight infant was twice as great for unmarried as for married women—at least partly because the unmarried are less likely to receive adequate prenatal care.

Although further research can help define more precisely the relationship between all these factors and low birth weight and infant mortality, we have clear indications of measures which can be taken now to reduce the risks. Chapter 8 is devoted to those measures.

Subgoal: Reducing the Number of Birth Defects

Birth defects include congenital physical anomalies, mental retardation, and genetic diseases. Many present immediate serious hazards to infants. Many others, if not diagnosed and treated immediately after birth or during the first year of life, can affect health and well-being in later years.

Birth defects are responsible for one-sixth of all infant deaths. They are the second leading cause of death for children one to four years old, and the third leading cause for those five to 14 years old.

Nearly one-third of all hospitalized children are admitted because of genetically determined or influenced disorders which often result in long-term economic and social strains for affected families.

Approximately two to three percent of infants have a serious birth defect identified within the first weeks of life—and five to 10 percent of these are fatal. Those most likely to be lethal include malformations of brain and spine, congenital heart defects, and combinations of several malformations.

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* Toxemia—present in two percent of pregnancies— is characterized by high blood pressure, tissue swelling, headaches, and protein in the urine. It can provoke convulsions and coma in the mother, death for the fetus.

In about one-fourth of birth defects, the cause is thought to be purely genetic; in one-tenth, purely environmental. In the remaining two-thirds, the cause is unknown. Interaction between genetic and environmental factors is an important concept guiding substantial research in this area.

Given current knowledge, many birth defects cannot be prevented. But many can be. Identifiable environmental hazards can be reduced. Carrier identification, amniocentesis, and neonatal screening procedures (Chapter 8) can aid in detecting some genetic disorders before, during, and after pregnancy.

Inherited Factors

Although some 2,000 genetic disorders are known, fewer than 20 are responsible for most genetic disease in this country.

Five types cause most of the illness and death:

Down syndrome. One of the best known genetic disorders, Down syndrome is associated with the presence of an extra chromosome, and occurs in about one of every 1,000 births. It causes physical defects which require lifelong care, and is responsible for 15 to 30 percent of the severe mental retardation in children living to age 10.

The risk of having a Down syndrome child increases with maternal age, especially after 35; at least one-fourth of the 3,000 infants with the syndrome born each year are those of women 35 or older. Recent research has shown that the father, rather than mother, contributes the extra chromosome in about one-fourth of all cases.

Down syndrome can be detected by sampling intrauterine fluid through amniocentesis but the procedure currently is being performed for only about 10 percent of the 150,000 women aged 35 and older who become pregnant in any one year. The advisability of having amniocentesis depends upon individual circumstances and should be discussed with a physician.

Severe brain and spinal cord (neural tube) defects. Neural tube defects not only occur more frequently than Down syndrome but also result in more deaths within the first month of life.

Characterized by lack of development of parts of the central nervous system or its skeletal protection, neural tube defects include spina bifida (a vertebral column defect) and anencephaly (very small head and brain). The defects occur in about two of every 1,000 infants, half of whom die in the newborn period. In addition to amniocentesis, a maternal blood screening test for a substance called alpha-fetoprotein can detect pregnancies at risk for neural tube defects.

Risk for neural tube defects is 2.5 times greater for whites than other racial groups. At greatest risk are families with previous history of the defects or with an affected child; genetic counseling is recommended for them.

Defects related to particular ethnic groups. These include Tay-Sachs disease, sickle cell anemia, and cystic fibrosis.

Tay-Sachs disease is 100 times more frequent among Jewish families of Ashkenazi (Eastern European) descent than in the general population. Although children with the disease appear normal at birth, they die by age five as a result of severe mental retardation and progressive neurologic deterioration. The disease is caused by accumulation of a fatty substance in the brain. Because the responsible gene is recessive, Tay-Sachs disease occurs only when both parents carry the gene. Each prospective child then has a 25 percent chance of developing the disease. Fortunately, a carrier detection screening test is available to identify an at-risk couple before pregnancy.

Sickle cell anemia is the most common serious genetic disease among blacks. About 1,000 infants each year are born with sickle cell disease in which red blood cells are damaged because of altered stability of their hemoglobin content. Although no mental retardation is associated with sickle cell disease, it is a serious condition leading to years of pain, discomfort, and even death from complications. Specific treatment has yet to be found.

Cystic fibrosis occurs primarily among whites in about one of every 2,000 births, affecting 1,500 infants a year. In the disease, abnormal production of mucus leads to chronic lung obstruction and disability during childhood and early adult life. The disease can also affect the pancreas, liver, and intestines. In 1976, it caused the death of twice as many infants as tetanus, whooping cough, syphilis and rubella combined. Although there is no specific cure, there have been many advances in caring for patients so that, if they survive through infancy, many now reach adult life.

Sex-linked defects. These congenital disorders affect the sons of mothers who carry an abnormal X chromosome. Hemophilia and muscular dystrophy are two prominent examples. The bleeding disorder, hemophilia, is due to deficiencies in the clotting mechanism of the blood. In muscular dystrophy, muscle is replaced by fat, leading to gradual muscular weakness and wasting.

Metabolic disorders. The most widely known of this group—and the one for which infants are most frequently tested—is PKU (phenylketonuria). It involves a genetic liver enzyme deficiency which allows an amino acid to accumulate abnormally, impairing brain function and leading to increasingly severe mental retardation later in childhood. PKU, which occurs in one of every 15,000 births, can be treated with special diet that compensates for the enzyme deficiency.

Congenital hypothyroidism (cretinism) is a more common metabolic disorder capable of causing mental retardation. Some cases result from genetic predisposition but others may be the result of circumstances (e.g. maternal iodine deficiency) occurring during fetal development. About 600 infants a year—one per 5,000 births—are affected, but early detection and prompt treatment with thyroid medication in the first weeks of life can prevent the retardation.

The availability of specific tests for both PKU and congenital hypothyroidism has prompted States to consider requiring both for each newborn. Even though the number of affected babies detected will be small, the benefits of early diagnosis and treatment for the affected babies can be profound.

External Factors

Birth defects can result from exposure of the fetus to infectious or toxic agents during pregnancy, especially during the first three months (first trimester).

Infections. Rubella (German measles), when it affects a mother during the first trimester, can lead to congenital malformations as well as stillbirth and miscarriage.

The greatest risk occurs when most women may not even be aware of being pregnant. The likelihood of rubella-induced malformations is approximately 25 percent during the first three months, after which it begins to decline substantially. The most serious problems for the fetus include blood disorders, heart defects, cataracts or other eye defects, deafness, and mild to profound mental retardation.

For prospective mothers who have not been exposed to rubella, vaccination prior to pregnancy can help prevent all of the problems for the fetus.

Radiation and chemicals in the workplace. These environmental factors have their greatest potential for harm during the early weeks of fetal development—again, often before a woman realizes that she is pregnant. And they remain hazards throughout pregnancy. High doses of ionizing radiation *in utero* not only can increase risk of fetal malformation, there is suggestive evidence of increased risk of subsequent leukemia and other childhood cancers. To reduce risks, protective measures should be taken to help pregnant women avoid unnecessary exposure.

Drugs. A broad range of medications, including some seemingly innocuous over-the-counter preparations, may harm the fetus.

A now-classic example of drug hazard is the epidemic several years ago of birth defects caused by maternal use of thalidomide. Taken as a mild sedative and sleeping aid, thalidomide led to developmental defects, particularly of the limbs, in approximately 35 percent of infants of mothers using it. Throughout the world, an estimated 10,000 deformed infants were born. Thalidomide was on the European market approximately five years before the problem was identified and the product removed, but it was never approved for use in the United States.

Other drugs known to cause birth defects include some hormones such as DES (diethylstilbestrol), as well as certain anti-cancer and anticonvulsant agents. DES taken by mothers during pregnancy has been linked to vaginal cancer development in daughters during adolescence and early adulthood.

Among drugs currently under study for possible birth defect potential are warfarin, diphenylhydantoin, trimethadione, and lithium. Some women need these drugs for serious problems such as post-rheumatic heart disease, seizures, and severe mental disturbances. Also under investigation are some drugs used during childbirth which may have detrimental effects on the child's central nervous system.

It must be emphasized to the public—and perhaps to some physicians—that exposure to any drug should be avoided at any time during pregnancy, but especially during the first trimester, unless there are overriding medical considerations to use a drug for the mother's health.

Alcohol. The incidence of alcohol-induced birth defects is now estimated to be one for every 100 women consuming more than one ounce of alcohol daily in early pregnancy. The fetal alcohol syndrome therefore accounts for the occurrence of approximately one birth defect in every 5,000 births in the United States.

Affected infants are often of low birth weight, mentally retarded, and may have behavioral, facial, limb, genital, cardiac and neurological abnormalities.

The risk and degree of abnormality increases with increased alcohol consumption. According to a Boston City Hospital study of infants born to heavy drinkers (average 10 drinks a day), 29 percent had congenital defects compared to 14 percent for moderate drinkers and only eight percent among nondrinkers. Furthermore, 71 percent of infants born to women who consumed more than 10 drinks daily had detectable physical and developmental abnormalities.

Safe alcohol consumption levels during pregnancy have yet to be determined. But, in view of the association between high levels and fetal abnormalities, women who are pregnant or think they might be should be encouraged to use caution. And women alcoholics, until treated effectively for their addiction, should be encouraged by public information programs and by direct counseling to avoid conception.

Other Important Problems

Several other problems with major impact on infant health are noted in Figure 3-C.

Injuries at Birth

Birth injuries, difficult labor, and other conditions causing lack of adequate oxygen for the infant are among the leading reasons for newborn deaths.

Although most pregnant women experience normal childbirth, complications may occur during labor and delivery. Some—such as small pelvic cavity—can be detected in advance, during prenatal care.

Others unidentifiable beforehand require prompt management. They include hemorrhaging from the site of attachment of the placenta (afterbirth); abnormal placental location; abnormal fetal position; premature membrane rupture; multiple births; sudden appearance or exacerbation of toxemia; and sudden intensification of a known medical problem such as heart disease or diabetes.

Sudden Infant Death

Certain babies, without apparent cause or warning, suddenly stop breathing and die, even after apparently uncomplicated pregnancy and birth.

This unexplained event, called the sudden infant death syndrome, is believed by some authorities to be the leading cause of death for babies older than one month.

Recently evidence has been accumulating that abnormal sleep patterns with increased risk of breathing interruptions (apnea) may be associated with the unexpected deaths. A variety of factors, such as prematurity and maternal smoking, are emerging as possible contributors to increased risk for sudden infant death, but there is a need to learn more.

Extensive research now under way should refine our ability to identify high risk infants and effectively prevent their deaths.

Accidents

More than 1,100 infants died in accidents in 1977. The principal causes were suffocation from inhalation and ingestion of food or other objects, motor vehicle accidents, and fires. Many deaths reflect failure to anticipate and protect against situations hazardous for developing infants. Child abuse may also account for some deaths.

Inadequate Diets and Parental Inadequacy

Although they are not major causes of death, problems related to infant care have significant impact on infant health.

Even in a society of considerable affluence, many infants are not receiving appropriate diets and suffer from deficiencies of nutrients needed for development. Frequently, it is overnutrition rather than undernutrition which is the problem setting the stage for obesity later in life.

Recognition of the extent to which parental attitudes are important to a child's development— and, with it, the need to bring parents and babies together psychologically—is receiving increasing attention.

Even when an infant must be kept in the hospital because of low birth weight, early contact between parents and child may be helpful to a good start in life and sound emotional development. Breast feeding is to be encouraged not only for its nutritional benefits but also for the contribution it can make to psychological development.

The fact is that growth of a "sense of trust" has been identified as a significant aspect of healthy infancy. Intimate, enjoyable care for babies fosters that growth and the building of sound emotional and mental health.

Moreover, recently, there has been growing recognition that certain disorders occur when there is neglect or inappropriate care for an infant. One is "failure to thrive" or developmental attrition— with the child losing ability to progress normally to more complex activities such as standing, walking, talking, and learning. Other disorders linked to neglect or inappropriate care include abnormalities in eating and digestive functions, sleep disorders, and disturbances in other activities.

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All of these problems underscore the need for regular medical care during the prenatal period and early months of infancy. Such care should be sensitively designed to enhance the relationship between parents and child as well as to ensure sound nutrition, appropriate immunizations, and early detection and treatment of any developmental problems.

As programs have expanded to provide better services to pregnant women and newborn babies, the health of American infants has steadily improved. These recent gains to infant health are indeed heartening.

Moreover, more can be done. To a greater extent than ever before, we have a clearer understanding of the factors important to ensuring healthy infants.

Section III discusses in greater detail the actions we can take.

and only 39 percent of the Nation's school districts offer information on human reproduction and sexuality.

A major focus of primary prevention efforts must be on providing contraceptive information and services to all sexually active teenagers in a manner that is accessible, convenient, inexpensive and, perhaps most importantly, is effective in communicating with them.

Finally, family planning involves more than the question of "when" to have a child; for some people, the question is "whether." There are couples at high risk of conceiving a child with an inherited disorder. They may wish to consider that risk in deciding whether or not to have children. Alternatives available to such couples include adoption, artificial insemination, or conception and use of fetal diagnostic measures.

In some cases—such as sickle cell anemia, Tay-Sachs disease, and hemophilia—the important genetic characteristics can be detected before pregnancy through analysis of blood samples (carrier detection). Other genetic disorders, described below, can be detected during the prenatal period through amniocentesis and analysis of amniotic fluid, but detection of an abnormality may require a decision on an abortion.

There should be greater effort by physicians, clinics, other health providers—and by schools—to make the availability of these tests and alternatives more widely known.

Pregnancy and Infant Care

The chance that an infant will be of low birth weight and at increased risk of developmental problems, and perhaps death, is heightened by lack of early, regular, quality prenatal care, as noted in Chapter 3.

Although between 1969 and 1977 the proportion of women receiving prenatal care during the first three months of pregnancy increased from 68 to 74 percent, too many still do not receive care until the last three months—and the greatest risk is for the one to two percent who receive none at all.

From 1950 to 1977, infant mortality dropped from 30 to 14 deaths per 1,000 live births. While some of the improvement was due to greater availability of regionalized intensive care units for newborns, better prenatal services have clearly played an important role.

Maternity and Infant Care (MIC) Projects—part of a national effort to provide assistance to vulnerable populations—have consistently been associated with declines in low birth weight incidence and infant mortality.

In Birmingham, Alabama, for example, after the MIC project began in 1967, prenatal clinics available for low income pregnant women increased and the proportion of women receiving prenatal care during the first trimester rose from 24 percent in 1968 to 39 percent in 1976. Although direct cause and effect relationship cannot be determined, infant mortality in this area dropped from 25 deaths per 1,000 live births in 1965 to about 14 in 1977—and infant deaths during the first month of life went from 19 to 10 per 1,000 live births, a 47 percent decrease.

In Denver, Colorado, infant mortality was 28 per 1,000 live births when the MIC project began in 1963; by 1972, it was down to 17 and the incidence of low birth weight also had declined.

Prenatal Care

What are the important services needed during pregnancy?

They include thorough assessment of any special risks because of family history or past personal medical problems; physical examination and basic laboratory tests; amniocentesis where indicated; and counseling on nutrition, smoking, alcohol use, exercise, sexual activity, and family planning (Figure 8-A).

Through a prospective mother's carefully recorded medical experience and family history, it is possible to identify factors which may put mother and fetus at special risk for avoidable problems.

About 80 percent of women at high risk of having a low birth weight infant can be identified in the first prenatal visit, and action can be taken to reduce the risk. Without such care, as noted in Chapter 3, an expectant mother is three times as likely to have a low birth weight child.

Through family history, risk can be identified for several inherited diseases, including Down syndrome, Tay-Sachs disease, and metabolic disorders, all discussed in Chapter 3.

Women with histories of such problems as repeated miscarriages, bleeding, and premature membrane rupture are at increased risk for not having a live and healthy baby—but measures can be taken during pregnancy to reduce the risk.

Also needing more intensive obstetrical care are women who have congenital reproductive tract malformations or medical problems such as diabetes, hypo- or hyperthyroidism, heart disease or kidney disease.

Laboratory tests are important because they can confirm problems suggested by an expectant mother's family or individual history.

Women who tend to be more susceptible to toxemia of pregnancy are those with high blood pressure, diabetes or kidney disease.

Toxemia, which, when present, usually occurs during the second half of pregnancy, is characterized by rapid weight gain, swelling of legs and eyelids, headaches, elevated blood pressure, and loss of protein in the urine. If it persists, it can threaten the pregnant woman's life through complications such as convulsions and stroke—and lead to fetal death.

When detected, toxemia can be controlled by rest, sedatives, antihypertensive and anticonvulsant drugs, and correction of chemical imbalances. In most cases, it subsides after pregnancy but in some it has residual effects.

For women 35 and over, those with a history of multiple miscarriages, and others with certain genetic indications, amniocentesis should be offered. In this fetal diagnostic procedure, which is used at about the 16th week of pregnancy, a needle is inserted through the wall of the woman's abdomen into the womb to withdraw a sample of amniotic fluid containing cells shed by the developing fetus. Cells and fluid can be analyzed for chromosomal and biochemical defects.

FIGURE 9-A

PREVENTIVE SERVICES FOR THE PREGNANT WOMAN AND FETUS

	SERVICES	INITIAL VISIT[1]	SUBSEQUENT VISITS[2]
HISTORY	General Medical	●	
	Family and Genetic	●	
	Previous Pregnancies	●	
	Current Pregnancy	●	●
PHYSICAL EXAMINATION	General	●	
	Blood Pressure	●	●
	Height and Weight	●	●
	Fetal Development		●
LABORATORY EXAMINATIONS	VDRL	●	
	Papanicolaou Smear	●	
	Hemoglobin/Hematocrit	●	
	Urinalysis for Sugar and Protein	●	●
	Rh Determination	●	
	Bloodgroup Determination	●	
	Rubella HAI Titre	●	
	Amniocentesis (for women over 35)[3]		
COUNSELING WITH REFERRALS AS NECESSARY AND DESIRED	Nutrition During Pregnancy	●	●
	Nutrition of Infant, Including Breastfeeding	●	●
	Cigarette Smoking	●	●
	Use of Alcohol, Other Drugs During Pregnancy	●	●
	Sexual Intercourse During Pregnancy	●	●
	Signs of Abnormal Pregnancy	●	●
	Labor and Delivery (including where mother plans to deliver)	●	●
	Physical Activity and Exercise	●	●
	Provisions for Care of Infant	●	●
	In Response to Parental Concerns	●	●
LABOR AND DELIVERY[4]			
POST-PARTUM VISIT (including family planning counseling and referral, if desired)			

[1] Initial visit should occur early in the first trimester.

[2] Subsequent visits should occur once a month through the 28th week of pregnancy; twice a month from the 29th through the 36th week; and once a week thereafter.

[3] If desired, amniocentesis should be performed at about the 16th week for women who are over 35 or who have specific genetic indications.

[4] Although not a "preventive" service, labor and delivery should be included in a package of pregnancy-related services.

Currently, about 100 conditions can be reliably detected by amniocentesis, including Down syndrome and neural tube defects. Neural tube defects also can be detected during pregnancy by a blood test and, in some cases, by ultrasound examination. Women with family histories of such genetic problems, or of multiple birth defects or inherited metabolic disorders, are at higher risk of having a fetus with a defect detectable through amniocentesis.

Also very important in prenatal care is the counseling of expectant mothers on potential problems for the fetus that may be caused by smoking, alcohol use, and poor nutrition, including referral, when necessary, to suitable social support services.

It would be difficult to overemphasize the need for seeing to it that nutritional requirements are met during pregnancy. There are increased requirements—especially for calories, iron, calcium, phosphorus and protein—and all the more so for pregnant teenagers whose requirements may be further increased by habitual poor dietary habits coupled with the accelerated needs associated with adolescent growth.

Maternal nutritional deficits have been shown to materially increase chances for low birth weight or stillbirth.

As early as 30 years ago, diet corrections—even in the last weeks of pregnancy—for women who had experienced famine conditions in the first trimester were found to help offset the potential effect of severe caloric deficiencies on the birth weight of their babies.

Although famine conditions do not exist in the United States, nutritional and socioeconomic status are linked, and many pregnant women, even some with incomes above poverty level, are not receiving adequate diets for normal fetal development. Providing an important adjunct to good health care are programs such as the Department of Agriculture's Special Supplemental Food Program for Women, Infants and Children (WIC) which gives dietary supplements and nutrition education at no cost for certain pregnant women, infants, and children up to five years of age.

Even before they become pregnant, women need to know about factors that may affect the health of their future babies. While providing information about risks of using cigarettes, alcohol and drugs, is an important part of prenatal care, many women are pregnant several weeks before knowing they are—and it is at the very early stages that the fetus is most vulnerable.

Early on, too, the fetus can be affected by toxic chemicals and infectious agents. Moreover, exposure to ionizing radiation above a certain level in the first week or two of pregnancy increases risk of spontaneous abortion—and subsequent exposure, especially during weeks two through six, increases risk of malformations and some childhood cancers, including leukemia.

Here, again, we need intensified educational efforts by schools, health providers, and the media.

The Birth Process

Although most women experience uncomplicated childbirth, about 20 percent have some problem during labor, according to the 1972 National Natality Survey.

There may, for example, be hemorrhaging, sudden worsening of toxemia, or impairment of oxygen supply to the fetus because of its position in the uterus.

Because these problems require prompt intervention, preventive care during pregnancy should also focus on the birth process itself and include education about childbirth and preparation of both parents, with underscoring of the importance of selecting a place for delivery in or near facilities that can be used to respond to emergency situations.

Recent technological advances promise improved capability for responding to birth process problems. Electronic fetal monitoring, for example, has improved ability to detect fetal distress and therefore to save the lives of many high risk infants. While the technique, if not used properly, may lead to needless surgical deliveries as well as maternal infections, it can offer significant benefits when appropriately used to monitor high risk pregnancies.

Postnatal Care

Once a baby is born, prospects for good health can be enhanced by a number of preventive services (Figure 8-B).

A simple blood test can be used to screen newborns for PKU (phenylketonuria) and congenital hypothyroidism. With dietary manipulation for an infant with PKU, and thyroid hormone medication for one with hypothyroidism, mental retardation and other problems that otherwise would develop can be avoided.

Routine neonatal care also includes intramuscular administration of vitamin K to prevent the bleeding which occasionally occurs in newborns, and instillation of silver nitrate solution in the eyes to prevent eye infection which might occur if the mother has active gonorrhea.

Prevention of Rh (rhesus) sensitization is a major advance. The sensitization can occur when a mother has Rh negative blood and the fetus' type is Rh positive. It can be prevented by administering a blood protein—Rh immune globulin—to the mother after the birth of an Rh positive baby or after an abortion or miscarriage. If the immune globulin is not administered, the mother may develop antibodies to the baby's red blood cells and the antibodies, during a subsequent pregnancy with an Rh positive fetus, may destroy the infant's red blood cells, producing anemia, brain damage, spontaneous abortion, or death.

Since introduction of Rh immune globulin in 1968, the estimated incidence of erythroblastosis fetalis (the disease caused by Rh incompatibility) has dropped from about 4.1 cases per 1,000 births in 1970 to about 1.6 per 1,000 in 1977.

Despite its relative lack of public attention, the disease is still a significant preventable problem which affected 233 infants in 1976, 10 times the number born with congenital rubella syndrome that year. Yet,

FIGURE 8-B

PREVENTIVE SERVICES FOR THE NORMAL INFANT

	SERVICES	BIRTH VISIT	SECOND VISIT[1]	SUBSEQUENT VISITS[2]
HISTORY AND PHYSICAL EXAMINATION	Length and Weight	●	●	●
	Head Circumference	●		
	Urine Stream	●		
	Check for Congenital Abnormalities	●		●
	Developmental Assessment			●
PROCEDURES	PKU Screening Test		●	
	Thyroxin T4		●	
	Vitamin K		●	
	Silver Nitrate Prophylaxis	●		
IMMUNIZATIONS	Diphtheria			●
	Pertussis			●
	Tetanus			●
	Measles[3]			
	Mumps[3]			
	Rubella[3]			
	Poliomyelitis			●
PARENTAL COUNSELING, WITH REFERRALS AS NECESSARY AND DESIRED	Infant Nutrition and Feeding Practices (especially breast-feeding)		●	●
	Parenting		●	●
	Infant Hygiene		●	●
	Accidental Injury Prevention (including use of automobile restraints)		●	●
	Family Planning and Referral for Services		●	●
	Child Care Arrangements		●	●
	Medical Care Arrangements		●	●
	Parental Smoking, Use of Alcohol, and Drugs		●	●
	Parental Nutrition, Physical Activity and Exercise		●	●
	In Response to Parental Concerns		●	●

[1] Second visit should occur within 10 days or before leaving the hospital.

[2] Four health visits the rest of first year or enough to provide immunizations.

[3] Measles, mumps, and rubella immunizations occur at 15 months.

appropriate postnatal intervention could do away almost entirely with the disease.

Breast feeding. Emotional and physical nurturing are vital to an infant's health and breast feeding provides a way of enhancing both.

Until this century, breast feeding was the principal source of nutrition for infants during the first six months of life, the period of most rapid growth. In the 1940s about two-thirds of infants were being breast-fed but by the late 1960s and early 1970s, the proportion was down to about 15 percent. Recently, the trend has reversed; a 1976 survey found more than half of all mothers breast feeding.

Human breast milk provides nutritionally complete, convenient, prewarmed food for infants. Breast feeding also increases mother-infant contact, confers some protection from infectious diseases by transferring antibodies from mother to child, and helps women who have gained excessive weight during pregnancy to lose it.

Moreover, breast fed infants rarely are obese and virtually never develop iron deficiency anemia, the most common nutritional problem of American infants. If the nursing mother is healthy and well fed, fluoride and possibly vitamin D may be the only supplements needed by the baby. After about four months, a source of iron may also have to be added to the diet.

Commercial formulas are available and when prepared according to directions provide adequate nutrition but, in contrast to breast feeding, they are not regarded as the optimal food source.

Solid foods. Solid foods should be introduced with care—generally not until the baby is at least three months old. No adverse effects occur when solid food—and cow's milk—introduction is delayed until much later in infancy.

On the other hand, when fed too early, solid food may predispose an infant to food allergies, overeating, and choking.

In choosing solid foods, mothers should use nutritional value rather than taste as the primary guideline. An infant does not need sweetened or salted food and commercial baby foods should not be supplemented with extra sugar or salt.

New foods should be introduced one at a time, with each continued for a week before another is introduced. This helps identify and avoid food intolerances or allergies. Commonly, rice cereals are used first, followed by fruits and vegetables, and finally by meat. To determine the proper diet for an infant, parents would do well to consult a pediatrician, dietitian, or other health professional.

Immunizations

Because of vaccines, diseases that once ranked among the leading causes of death, particularly for children, now are regarded with less concern. Figure 8-C shows the change in incidence due to immunization.

But while substantially reduced as threats in most cases—and eliminated in the case of smallpox— these diseases still can be quite dangerous. Recent epidemics of measles and pertussis, and occasional outbreaks of diphtheria and polio, indicate that, short of complete eradication, reduction in a disease's incidence is temporary and immunization must be continually emphasized.

Childhood Immunization

Each of the seven major childhood infectious diseases which can be prevented by immunization— measles, mumps, rubella, polio, diphtheria, pertussis, and tetanus—can cause permanent disability and, in some cases, death.

The provision of protection against these problems has become a national priority. When polio vaccination became possible in the 1950s the Federal government moved to provide funds to State and local health departments for large-scale immunization campaigns. Similar campaigns were begun when measles and rubella vaccines were introduced. The combined Federal, State and local efforts were notably successful (Figure 8-C).

Yet vigilance in maintaining immunization levels has waned and large numbers of children are not adequately immunized. In 1976, more than a third of all children under age 15 were not properly protected—and the following year rubella cases increased by 63 percent, measles cases by 39 percent, and whooping cough cases by 115 percent.

In response to the low immunization levels and disease increases, the President in 1977 began a major Childhood Immunization Initiative. That Initiative reflects recognition of the need for a coordinated, broadly-based national effort to attain and sustain adequate immunization protection.

With the combination of safe, effective vaccines, public and private programs, and a reliable disease surveillance and outbreak containment system, infectious diseases can be controlled. In fact, complete elimination of measles is within reach and has been set as a national goal.

Although universal childhood immunization could eliminate a vast amount of suffering and permanent damage, barriers exist. Public interest must be maintained and parents must ensure that children are protected. The effort must be broad, involving not only public and private health sectors but also education, social services, and other fields. A recommended schedule is shown in Figure 8-D.

To help parents, health departments and schools should maintain outreach programs and educational efforts as well as programs making health services available on a continuing basis.

The poor are of particular concern since survey data indicate they consistently have lower immunization levels and higher disease incidence. Medicaid experience has shown that even where payment for preventive services is provided, there is no assurance that the services will be used.

On the other hand, neighborhood health centers, children and youth centers, and Health Maintenance Organizations have demonstrated that where services are provided in an organized setting, responsive to the needs of the population served, and coupled with outreach and follow-up efforts, preventive services may be used appropriately by all income groups.

Mr. SIKORSKI. What year did the PHS have any indication that the goals for blacks was less likely to be achieved than the overall rate?

Mr. BRANDT. 1982.

Mr. SIKORSKI. I think you mentioned—I don't know if the date is in the record—on January 16 of this year the Director of the National Center for Health Statistics projected that at the current rates, the goal for black infant mortality simply would not be met.

Mr. BRANDT. That is correct. As a matter of fact, the projection that I was provided is in the testimony, and our projection is 13.5 rather than 12; that is assuming no change. This is 1984, and we are talking about 1990.

Mr. SIKORSKI. The goal would not be achieved if the current trends continue, I think the report states?

Mr. BRANDT. That is correct.

Mr. SIKORSKI. In fact, this is the first time the administration has put its awareness of the anticipated failure to meet the 1990's objective into the public record, is that correct?

Mr. BRANDT. Well, it depends on what you call the public record. The public health reports, which is the journal in which we publish progress reports on each of these objectives, certainly alludes to it. I don't think—I will have to go back and look specifically to see whether those goals were addressed. But I think we point out there are some problems, yes.

Mr. SIKORSKI. If there are any allusions that rise to the level of informing the public of failure on that objective, I think the record should be held open for you to submit those.

Mr. BRANDT. All right, sir, I will have to go back and see. I am not absolutely sure about that particular progress report, but I will go back and read it and see.

[See correspondence beginning on p. 275.]

Mr. SIKORSKI. Prior to this admission or statement of concern about the goal not being reached, you previously focused on the problem of the etiology of low birth weight, is that correct?

Mr. BRANDT. Yes, sir.

Mr. SIKORSKI. You did two things, as I understand, you established the low birth weight task force, and you asked the National Institutes of Health to identify gaps in research activity, is that correct?

Mr. BRANDT. That is correct.

Mr. SIKORSKI. And do you agree that neither of these responses will result in any immediate change in intervention activities for the populations at risk?

Mr. BRANDT. Well, I suspect that they won't.

Mr. SIKORSKI. You suspect that——

Mr. BRANDT. That they will not.

Mr. SIKORSKI. And I believe I am——

Mr. BRANDT. Because, again, I just want to keep coming back, that the Institute of Medicine has brought together a panel of experts, and they addressed the same kind of problem. The point is that——

Mr. SIKORSKI. I understand those points, but I just want to make sure that we understand the context of this discussion here today. That is that there have been two responses mentioned in your testimony; yet these responses are not intended to affect the populations that are at risk or change those lines in any way, at least in the immediate timeframe.

Mr. Brandt. I fully hope the information will come so in the not-too-distant future we can do something about it.

Mr. Sikorski. How soon?

Mr. Brandt. That is the reason for doing it.

Again, you ask me to predict the outcome of——

Mr. Sikorski. I am asking you to predict because sometime we will have Presidents, Senators, and chairmen of other committees come from the ranks between me and that seat over there. At that point, I don't want to sit with you or your successor and ask the same question 30 years from now.

Mr. Brandt. At that time it will be my successor.

I think——

Mr. Sikorski. Are we talking months?

Mr. Brandt. No; we are not talking months. I think the earliest you could expect significant results from those research projects would be 3 to 4 years. If the low birth weight task force will, in working with the IOM group and others, begin to identify some initiatives that we should undertake immediately, we will undertake them, but I don't—I am not——

Mr. Sikorski. We do know there are some nonresearch things that relate to low birth weight that are not being initiated at this time.

Mr. Brandt. Like?

Mr. Sikorski. The whole issue of smoking, the rest of it, maybe I can get into that.

You have indicated there are certain areas where we have made great progress in saving babies, both black and white. The most impressive success has been with newborn intensive care, that success in the regionalized system for supplying this sort of newborn care is enhanced by advance knowledge of the need and that an effective way to identify these high-risk infants is for the medical team to see the mothers in prenatal care, to predict and delay premature labor, to discover high blood pressure, eclampsia, anemia, diabetes, infection, and other chronic treatable diseases in the mother to improve nutrition and to stop smoking, alcohol, and drug abuse.

Is that a fair summary, so I don't have to ask you for each one?

Mr. Brandt. That is a fair summary except you left out the age situation, and no amount of intervention can make a 16-year-old girl older. That is the other major factor.

Mr. Sikorski. The reason I ask the question is you want to focus on the things we can't change. I want to focus on the things we can.

Mr. Brandt. Oh, fine.

Mr. Sikorski. OK?

Mr. Brandt. Fine.

Mr. Sikorski. You highlighted that concern. I think that is a frustration of some of the people who ask questions before this committee.

Looking at barriers to prenatal care, you concurred that prenatal care is useful for identifying high-risk pregnancies, for correcting certain problems and for getting proper delivery and newborn services. Would you agree that many women in the United States don't receive such prenatal care?

Mr. Brandt. I would certainly agree there are women in the United States that don't receive prenatal care. I don't know the numbers specifically, no, sir. But I would agree that there are too many women who don't receive prenatal care.

Mr. Sikorski. I don't know the number specifically either, but we are talking about millions, aren't we?

Mr. Brandt. I suspect.

Mr. Sikorski. Are there a few things that contribute to failure to connect pregnant women with effective services, for example, not having a doctor, not being able to afford a doctor, not knowing that it is useful and not knowing that you are pregnant, is that a fair summary?

Mr. Brandt. Yes, sir.

Mr. Sikorski. Would you agree that it could make a difference on this problem if we could overcome these obstacles to get prenatal attention for these pregnant women?

Mr. Brandt. I would agree that be a great help if we could overcome some of those obstacles.

Mr. Sikorski. You indicated that in the programs of the Public Health Service, your goals are to reach all women starting with family planning services and continuing into planned pregnancies, have you not?

Mr. Brandt. Yes, sir.

Mr. Sikorski. Where is there a Public Health Service program in place—where there is a public health service program in place, resources are present to meet the needs. Would you agree that there are places in the United States where the service capacity of the doctors and nurses, and whatever, are just not there within at least a reasonable distance?

Mr. Brandt. Yes, sir.

Mr. Sikorski. These most likely would be rural areas, and many urban areas lack sufficient supply of doctors who will treat the poor and minorities, would you agree?

Mr. Brandt. I agree that there are—there are areas in this country that will never be adequately covered by medical care. There are areas that are very isolated; Loving County, TX with a population of less than 200 people scattered over a wide, wide area will never have a hospital or a physician there. They are going to be at some distance from medical care.

So I think——

Mr. Sikorski. Let's not continue to focus on the worst-case situation; there are a lot of people in the largest city in the world that don't have access to care.

Mr. Brandt. I just want to make it clear——

Mr. Sikorski. I am a realist. You don't have to point out——

Mr. Brandt. Fine.

Mr. Sikorski [continuing]. To me the problems we have in the country—what I am trying to focus on is that there are rural areas and urban areas, for whatever reasons, that just don't have the facilities or the services available for this prenatal care at this time.

Mr. Brandt. There certainly are some, yes.

Mr. **Sikorski**. And that a lot of them are not in the worst-case situations, what was it, Lubbock County?

Mr. **Brandt**. Loving County.

Mr. **Sikorski**. Loving?

Mr. **Brandt**. Yes. Some of them——

Mr. **Sikorski**. I never had the privilege of being there so I don't know. And the way you describe it, I will think twice about it.

Mr. **Brandt**. They don't have an airport, either.

Sure, those issues have to be settled. That is one of the reasons why one of our major goals has been to work with States and local authorities to try to assist in the solution of those problems. That is why we have again entered into agreements with 36 states on community health centers, with 30 States on the National Health Service Corps, with 40 States on family planning to allow those States to develop a total plan to meet these kinds of problems that they have.

And we will then collaborate with them in the location of community health centers as clinics or the location or assignment of National Health Service Corps officers——

Mr. **Sikorski**. Dr. Brandt, that sounds good, and I am sure there will be some good that comes out of it, but I served for 6 years in the State Senate on the Health, Welfare Corrections Committee, and it was for the last 2 years in charge of our largest part of our State budget, and there is a big gap between those stated goals and agreements and the reality of getting these pregnant women the type of prenatal care that we all agree is important.

Getting back to that issue, this gap between the services and the numbers explains why some women just don't get the continuity of the prenatal care they need, why some women get prenatal care late in their pregnancies rather than early, and why some women just don't get any prenatal care at all, is that a fair summary?

Mr. **Brandt**. I think that the lack of access to the system certainly will explain a portion of the problem.

Mr. **Sikorski**. I would like to congratulate you. I was delighted to see in your statement that the Public Health Service is examining the decline in receipt of early prenatal care among pregnant black women in 1981 mortality data. I know your next visit with us, we will all be eager to hear how you use such indicators to make public health interventions to reverse the situations.

Mr. **Brandt**. I would like to point out that those women——

Mr. **Sikorski**. Not 30 years from now.

Mr. **Brandt**. Yes, sir.

I would like to point out that that natality survey, was of women who conceived in 1980. So that the data there are really from April of 1980 through March 1981. That shows that the decline in prenatal care—which is, by the way, slight, about 1 percent—had already begun somewhat earlier even than I think most of us realized.

But we will, in fact, try to report back to you on the progress. Thank you, sir.

Mr. **Sikorski**. My concern is with the health interventions that you people are going to be doing.

Mr. **Brandt**. Yes, sir.

Mr. **Sikorski**. One fundamental question has been, what should be done for women in prenatal care? The American College of Obstetrics and Gynecology produced guidance for practitioners, and you have decided, have you not, to adopt these?

Mr. **Brandt**. Yes. We have adopted those.

Mr. **Sikorski**. Don't these standards include the following advice: early prenatal care, continuity, certain diagnostic procedures, appropriate interventions, et cetera?

Mr. **Brandt**. Yes, sir.

Mr. **Sikorski**. And, if I may, Mr. Chairman, at this point I would like to put the guidelines of the standards for obstetric and gynecological services from the American College of Obstetrics and Gynecology into the record.

Mr. **Dingell**. Without objection, the staff will review that and insert the appropriate portions in the record.

[Testimony resumes on p. 171.]

[Excerpts of the documents referred to follow:]

Standards for Obstetric-Gynecologic Services

RECEIVED
JUN 27 1984
Subcommittee on
Oversight and Investigations

Fifth Edition

2 Obstetrics: Ambulatory Care

Every woman should have a comprehensive program of antepartum care that begins as early in the first trimester of pregnancy as is possible. Early diagnosis of pregnancy is important to establish the management plan appropriate to the individual.

SERVICES

The physician and other members of the health care team, should discuss the proposed plan of antepartum care with the patient. The discussion should include an explanation of what kind of care can be provided in the office, necessary laboratory studies, the expected course of the pregnancy, signs and symptoms to be reported to the physician, the timing of subsequent visits, educational programs, alternative birthing procedures, and the general plan for hospital admission, labor, and delivery. The discussion should also include an explanation of the roles of various members of the health care team, office policies (including how to reach the physician in emergency situations), and alternate physician coverage. Specific information regarding costs should be provided so the patient can make financial arrangements for medical care, special laboratory costs, and hospitalization.

Pregnancy Evaluation: General Guidelines

INITIAL EVALUATION

During the initial evaluation an obstetric data base should be established for each patient to include a comprehensive health history; current pregnancy; past medical, family, and social history; physical examination; laboratory procedures; and risk assessment.

History. The *health history* should include the menstrual history and a detailed record of the current pregnancy. Data on the current pregnancy should include factors that help identify the patient at high risk, such as age, vaginal bleeding, edema, urinary infection, rubella, radiation exposure, use of medication, and use of alcohol, tobacco, or other addicting substances. The past obstetric review should include the number of full-term pregnancies, premature pregnancies, spontaneous and induced abortions, number of living children, spacing of previous pregnancies, length of each gestation, route of delivery, sex and weight of the newborn, and any complications, particularly those resulting in fetal or neonatal deaths.

Emphasis should be placed on drug sensitivities and other allergies, operations, blood transfusions, blood group and Rh type, diabetes and other metabolic diseases, vascular problems, sexually transmitted diseases, convulsive disorders, gynecologic abnormalities, and serious injuries. The previous administration of Rh immune globulin should be specifically noted.

The *family history* should include information on metabolic disorders, cardiovascular disease, malignancy, congenital abnormalities, mental retardation, and multiple births. The *social history* should include the patient's occupation and work environment, ethnic origin, and educational background. Religious beliefs precluding or mandating a certain type of therapy should be noted.

The patient's current nutritional status and habits should be evaluated. (Other special topics of concern during the initial evaluation are discussed separately in this chapter under the appropriate sections on Nutrition, Health and Childbirth Education, Pregnant Women in the Work Force, and the Adolescent Pregnancy.)

Physical Examination. A comprehensive physical examination should be performed during the initial prenatal evaluation. The examination should include an evaluation of the height, weight, blood pressure, head, neck, breasts, heart, lungs, abdomen, pelvis, rectum, and extremities. During the pelvic examination, attention should be given to the size of the uterus and the configuration and capacity of the bony pelvis.

Laboratory Tests. The following prenatal laboratory tests should be performed as early in pregnancy as possible:

- Hemoglobin or hematocrit
- Urinalysis
- Blood group and Rh type
- Irregular antibody screen
- Rubella antibody titer
- Cervical cytology
- Syphilis screen

The need for additional laboratory evaluations should be determined by historical factors or unusual findings derived from the history and physical examination. The cultural and social origin of the patient may also dictate special testing, which may include urine culture, blood glucose test, culture for gonorrhea, sickle cell and other inheritable diseases, and tuberculosis skin test.

Risk Assessment. A problem list, with recommendations for the management of each problem should be formulated and a risk assessment determined. Appropriate management should be instituted for those patients who have been identified as high risk. The problem list should be reviewed and risk assessments reevaluated at various intervals throughout the pregnancy. To assure appropriate care at delivery, the obstetrician should inform the pediatrician that a significant risk factor is present for the infant.

The following is a partial list of high-risk factors, derived from the history or from the physical examination, that significantly increase pregnancy risks and that might necessitate further evaluation, consultation, or referral:

- Cesarean delivery
- Operations on the uterus or cervix
- Medical indication for termination of pregnancy
- Premature onset of labor
- History of prolonged labor suggesting dystocia
- Two or more abortions, spontaneous or induced
- Newborn small or large for gestational age
- Multiple gestation
- Neonatal morbidity
- Fetal or neonatal death
- Isoimmunization
- Cardiovascular disease
- Urinary tract disorders
- Metabolic or endocrine disease
- Chronic pulmonary disease
- Nutritional disorder
- Use of drugs, alcohol, and tobacco
- Maternal age less than 15 years and more than 35 years
- Previous infertility
- Neurologic disorder
- Psychologic illness
- Congenital abnormalities

SUBSEQUENT VISITS

The frequency of return visits should be determined by the woman's individual needs and risk assessment. While some degree of flexibility is desirable, the woman with an uncomplicated pregnancy should generally be seen every 4 weeks for the first 28 weeks of pregnancy, every 2–3 weeks until 36 weeks' gestation, and weekly thereafter. Women with active medical or obstetric problems should be seen more frequently, at intervals to be determined by the nature and severity of the problems.

At each follow-up visit the patient should be given an opportunity to ask questions about her pregnancy and to comment on changes she has perceived since the last visit. The physical examination should include blood pressure, weight, measured fundal height, fetal presentation, and fetal heart rate. A urinalysis for protein and sugar should be performed during each visit. Any change in pregnancy risk should be recorded.

Early in the third trimester, an additional hemoglobin or hematocrit should be determined, and a repeat test for syphilis or other sexually transmitted diseases should be performed if the patient belongs to a high risk population. At some time during the patient's antepartum course, it may be appropriate to repeat an irregular antibody screen. Unsensitized Rh negative patients should have repeat antibody tests at about 28, 32, and 36 weeks' gestation.

Various forms of biochemical or biophysical monitoring may be required to determine the integrity of the fetal/placental unit in high-risk patients. These may be conducted in an ambulatory setting. When amniocentesis is performed in the third trimester, cesarean delivery capabilities should be readily available.

Plans for hospital admission, labor, and delivery should be reviewed and information provided on what to do when labor begins, when the membranes rupture, or when bleeding occurs. Analgesic and anesthetic options should be discussed. Because a general anesthetic may be required for labor and delivery, the patient should be advised of the hazards of ingesting food or fluid after the onset of labor.

Nutrition

The patient's nutritional status should be evaluated at the initial visit and then reassessed periodically during pregnancy. Pregnancy imposes energy needs on the mother that are about 15% higher than the requirements for a nonpregnant woman. In general, this amounts to about 300 kilocalories* daily. More specifically, an additional 150 kcal/day added to the diet during the first trimester and 350 kcal/day during the last two trimesters have been recommended. These recommendations do not take into account such variables as ambient temperature, patterns of physical activity, and caloric requirements unrelated to pregnancy, such as the growth requirements of the adolescent. Other factors that may modify the caloric requirements include the mother's weight before pregnancy and her general health.

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*The caloric value of the diet refers to the physiologically available or metabolizable energy yield of foods actually consumed. The unit of measure is the kilocalorie (kcal), often simply called a calorie. The normal daily requirement for a nonpregnant woman is approximately 2000 kilocalories.

Universal agreement has never been achieved on how much weight should be gained during pregnancy. More important than total weight gain is the pattern of weight gain. Maximal gain occurs during the second trimester, although from a practical point of view the rate of gain is essentially linear after the 10th gestational week, averaging about 0.4 kg/week. The usual average total weight gain, therefore, is 10–12 kg (22–27 pounds).

Weight reduction during pregnancy is not recommended. If weight reduction is indicated because of prepregnancy obesity or excessive gain during pregnancy, it should be delayed until the patient is postpartum and not lactating.

Protein requirements in pregnancy should be calculated on the basis of the patient's maturity and weight. An adult woman needs about 1.3 g of protein per day per kilogram of body weight (for an average of about 75 g/day). An adolescent aged 15–18 needs 1.5 g/kg; a younger girl, 1.7 g/kg. About two-thirds of the total protein intake should be of high biologic quality such as that found in eggs, milk, or meat.

Supplements of iron are recommended since most women are unable to meet the gestational requirements. These may be given in the form of simple ferrous salts in amounts of 30–60 mg of elemental iron daily throughout pregnancy and lactation and then for an additional three months postpartum.

Folic acid supplementation is recommended because dietary levels of folate may not be adequate to meet the demand of pregnancy. Supplementation of folate in amounts of 400–800 mcg/day is appropriate.

Vitamins and other minerals are required in additional amounts during pregnancy and lactation; however, these may be provided if the patient increases her overall dietary intake as recommended for the pregnant and lactating patient. If not, a vitamin/mineral supplement equal to the RDA should be given. Such supplementation should not be regarded as a substitute for the ingestion of a balanced diet or continued nutritional counseling. The patient should be advised that excessive intake (i.e., 10–90 times the RDA) of certain vitamins may be potentially dangerous to the developing fetus (e.g., A, which may cause bone deformities; D, which may result in renal pathology; and C, which may lead to infant dependency).

Sodium is required in pregnancy for the expanded maternal tissue and fluid compartments as well as to provide for fetal needs. Women with uncomplicated pregnancies may use sodium at levels they prefer. Routine sodium restriction is not advised.

Lactation requires additional energy sources; at least 500 kcal/day above nonpregnant levels are recommended. Calcium and protein are also required in greatly increased amounts. Consumption of one quart of lowfat milk and one egg in addition to normal intake of meat, fish, poultry, and other daily foods will provide these needs for the lactating mother. In patients for whom milk is physiologically or psychologically unacceptable, alternative sources of protein and calcium will be needed.

Health and Childbirth Education

Health education is a shared responsibility. While the patient is responsible for her health and the health of her child, the health care team should provide her with adequate information to carry out this responsibility.

It is appropriate for various members of the health care team to provide patient education and information. However, when medical problems exist, the attending physician should be responsible for patient instruction concerning these problems. Information provided to the patient should be geared to her level of knowledge and awareness. The physician should also be sensitive to the patient's social, cultural, religious, ethnic, and economic background.

An educational program to provide instruction in preparation for childbearing and parenthood is desirable for expectant parents. An effective program can foster a rewarding childbirth experience and help in the transition to parenthood.

Educational programs may be offered by the hospital or community agencies or groups and ideally should be conducted by personnel prepared to teach childbirth education. Participation of physicians and hospital obstetric nurses in educational programs is desirable to assure continuity of care and consistency of instruction.

Familiarity with the hospital's maternity and newborn unit is desirable as an integral part of educational programs. This may be accomplished by a tour of the facilities or by an audiovisual presentation.

Pregnant Women in the Work Force

When a pregnant woman is employed, an occupational history should be a part of the initial obstetric data base. The physician can use this data base to make recommendations on work during pregnancy. When the work environment presents potential hazards no greater than those encountered in normal daily life in the community, the woman with an uncomplicated pregnancy may continue to work without interruption until the onset of labor.

The pregnant woman should maintain a good state of nutrition, get adequate exercise and rest, and receive regular antepartum care. These basic health needs should be considered by the patient and employer as well as the physician in determining if a normal work schedule can be continued.

The patient's status in relation to her occupation should be reassessed throughout pregnancy. She should be given recommendations on minimizing potential hazards, including advice on whether she should continue her job. When providing a medical opinion to pregnant workers on whether to work outside the home, however, the physician should make recommendations strictly on the basis of objective clinical judgment of the available information.

The physician should be encouraged to consult with occupational health care providers. Their experience and knowledge of the work responsibilities and environment can supply useful information. In addition, they can often help arrange job modifications to permit the patient to continue to work. Such consultation, however, should not be sought without the patient's permission.

A postpartum examination is essential for the physician to determine if the woman is ready both physiologically and psychologically to resume working. Most women may return to work several weeks after an uncomplicated delivery. A period of 6 weeks is generally required for physiologic changes to return to normal, but the physician's recommendations on when the patient can resume full activity should be modified according to the patient's individual circumstances.

Psychosocial Services

Confronting psychological and social problems such as fear of pregnancy, guilt of an unwanted pregnancy, financial concerns, and marital or other family conflicts, may be the most distressing part of a woman's pregnancy. A woman with negative feelings about her pregnancy needs additional support from the health care team, and she may need professional advice on the alternatives to completing the pregnancy and keeping the baby. Family members and their interaction with the pregnant woman should be considered in whatever recommendations are made.

The obstetrician should be alert to the stresses that may arise from the patient's psychological and social conflicts to allow for the early detection and effective management of emotional problems. The physician should be aware of individuals and community agencies to whom patients can be referred for additional counseling and assistance when necessary.

The Adolescent Pregnancy

In an unmarried adolescent, pregnancy presents a significant challenge to the obstetrician because these mothers and their children are at a higher social, educational, and obstetric risk than the general population.

The physician should be prepared to assist the adolescent with the many conflicts that may arise when unplanned pregnancy occurs. Family and social relationships may be seriously disturbed, and the adolescent and her family and friends may have strong feelings of anger, shame, and guilt. The sensitive physician can do much to ease these tensions through counseling, education, and use of community and social resources.

Once a pregnancy has been confirmed, the physician should explore with the adolescent her feelings about the pregnancy and the possible options available to her. Late confirmation may complicate these considerations and options for management. The adolescent should take an active role in the decision-making process and recommendations should be specifically directed toward her needs. Sensitive, perceptive, and in-depth discussions with the patient and those supporting her are necessary.

Counseling: Genetic and Other Birth Defects

The obstetrician should be alert to the detection of genetic disorders or other conditions that might lead to birth defects. Ideally, diagnosis of these disorders and appropriate counseling should take place prior to pregnancy. At the time of the first prenatal evaluation, routine inquiries should be made about an abnormal outcome of a previous pregnancy, any family history of birth defects, mental retardation, or other known or suspected inherited or metabolic diseases.

The following conditions place patients at a higher risk for occurrence or recurrence of congenital disorders: a history of congenital anomalies, mental retardation, known inherited metabolic disorders, a child with Down's syndrome or other chromosomal abnormality. Factors that further increase the risk for genetic and birth defects include a previous stillborn, two or more spontaneous abortions, maternal age over 35 years, and family history of or previous pregnancy with a neural tube defect.

Other conditions that may result in congenital abnormalities include infections such as rubella, toxoplasmosis, and herpes; alcohol or tobacco use; drug abuse; and exposure to radiation or certain chemicals.

When the risk of a genetic or other birth defect is identified, an accurate, specific diagnosis or etiology is necessary to define the prognosis and to establish the risk of occurrence or recurrence. When a genetic disorder is suspected, the patient, her husband, and her family should receive careful, sensitive counseling and advice on the alternatives of continuing or terminating the pregnancy. Where available, the services of qualified genetic counseling and evaluation centers may be helpful.

Consultation should be sought when the obstetrician is uncertain whether certain drugs, toxic chemicals, or environmental factors will adversely affect the developing fetus.

Postpartum Evaluation

Postpartum review and examination should be accomplished 4–8 weeks after delivery. This interval should be modified according to the needs of the patient with medical, obstetric, or intercurrent complications.

The first postpartum review should include an interval history and physical examination to evaluate the patient's current status. The examination should include an evaluation of the weight, blood pressure, breast, abdomen, and the external and internal genitalia. Laboratory data should be obtained as indicated. This is a good time for review of family planning, for determining immunizations, including rubella if not done immediately postpartum, and for discussing any special problems. The patient should be encouraged to return for subsequent periodic examinations.

ADMINISTRATION

Medical Records

Each patient should have a medical record that includes both antepartum and in-hospital care data. A standard data base is desirable, and the use of a common record within a community is preferred. The antepartum record should provide documentation of the history, physical examination, laboratory tests, and risk identificaion. Other pertinent data should include an assessment of the course of pregnancy, identification of the patient's health needs, and plans for management.

The medical record serves as an important vehicle for communication among all members of the health care team. It should be legible, concise, cogent, and complete and allow for easy assessment of the care provided to determine if the patient's health needs have been identified, diagnosed, and effectively managed.

A copy or satisfactory abstract of the current ambulatory care medical record should be available in the labor and delivery area of the hospital by the estimated 36th week of pregnancy and arrangements should be made to obtain the record as soon as possible if admission is necessary prior to this time. Upon discharge from the hospital, the patient's ambulatory care record should be updated to include information on in-patient care pertinent to her subsequent management.

The record should be kept confidential and protected against fire, theft, and other damage for the duration of time prescribed by law or regulations, by good medical practice, or state statute of limitations for personal injury.

Quality Assurance

Each ambulatory care setting should assess whether effective and efficient management of health care has been accomplished. This may be done by including the care given in the ambulatory setting in the hospital patient care evaluation, or by internal evaluations within the ambulatory setting. Health care evaluation should be concerned with the effectiveness of patient care and efficiency of resource use. Evaluation of patient care should assess the completeness of the medical records, the accuracy of diagnoses, appropriateness of use of the laboratory and other services, and outcome of care. It should include the identification of potential problems in the care of patients, the objective assessment of their cause, and designation of mechanisms to eliminate them. Efficient use of medical resources can be documented by evaluating use of personnel, finances, equipment, and facilities.

Obstetricians should practice ongoing review and comparison of their own experiences with standards of patient care and office practices suggested by the scientific literature, continuing medical education programs, or other members of their hospital obstetric staff.

Personnel

The efficient operation of ambulatory care facilities requires adequate administrative and professional personnel to provide optimum care and safety and to ensure against undue delays in delivery of care.

Obstetric care requires a team of professionals directed by a physician. In addition to an obstetrician, the team may include other physicians, certified nurse-midwives, nurse-practitioners, registered nurses and other nursing personnel, social workers, and nutritionists. The members of the team should participate in the specific areas of care according to their training and within the written definition of responsibilities. Written policies describing specific responsibilities of each member of the team are essential for larger facilities and desirable for the physician's office. The performance of each member of the health care team should be evaluated periodically.

It is advisable to hold regularly scheduled staff meetings to maintain effective communication and to provide periodic review of policies and procedures. There should be an ongoing program for inservice training of personnel appropriate for the facility providing care.

Facilities and Equipment

The physical facilities and equipment described in the following sections are included to serve as guides for physicians' offices and out-patient clinics. Facilities and equipment may vary from those listed according to the type of practice and patient volume. Facilities should be readily accessible to patients and their families and should meet safety and fire regulations as well as federal, state, and local health, building, and fire prevention codes.

PATIENT RECEPTION AREA

The reception area should provide comfortable seating, patient education materials, and conveniently located restroom facilities. Provision should be made for privacy in discussing financial arrangements and other confidential information with the patient. Sufficient space should be provided to permit medical and financial records to be handled and stored with security and confidentiality.

CONSULTATION ROOM

A comfortable and private area should be provided for interviews and for counseling with the patient or her family. The physician's office could serve as a consultation room. Separate rooms, other than the physician's office, should be available for use by nurses, social workers, health educators, and other members of the health care team, if such members are being employed.

EXAMINING ROOM AREA

The following equipment should be available in the examining room area, but not necessarily in each room:

- Biopsy instruments
- Microscope
- Sphygmomanometer
- Stethoscope
- Fetoscope
- Ultrasonic fetal pulse detector
- Reflex hammer
- Ophthalmoscope
- Adult scale
- Supplies for obtaining:
  - Wet slide preparations and bacterial smears
  - Specimens and cultures
  - Stool examinations
  - Cytologic studies

If amniocentesis is performed in an ambulatory setting, ultrasound equipment for placental localization and an appropriate method of fetal heart rate monitoring should be available. When amniocentesis is performed in the third trimester cesarean delivery capabilities should be readily available.

EXAMINING ROOMS

An adequate number of examining rooms should be available. The exact number will depend on the patient load; however, a minimum of two examination rooms is preferable. Equipment available for each examining room should include the following:

- Screening to permit patient privacy
- Handwashing facilities
- Examination table with suitable disposable cover, and stool
- Examination light
- Gynecologic examination equipment and supplies
- Work counter or table
- Small desk, table, or shelf for writing
- Storage cabinet

UTILITY ROOM AND STORAGE

The utility room area should contain the following:

- Work counter
- Handwashing facilities

- Deep sink
- Closed cabinets for storage
- Locked medicine cabinets
- Refrigerator for biologicals and specimens
- Facilities for sterilization unless central sterilization is available
- Waste receptacle

CONFERENCE ROOM

For larger practices or clinics, a conference and patient education room is desirable and may contain the following:

- Comfortable chairs
- Conference table
- Educational materials and pamphlets
- Chalkboard
- Bulletin board
- Models and demonstrating equipment
- Screen
- Slide projector
- Movie projector
- Videotape equipment

SAFETY STANDARDS

Specific plans and procedures should be established for the health and safety of patients and personnel and should include the following:

- Methods for controlling electrical hazards, and preventing explosion and fire
- Procedures for controlling and disposing needles, syringes, glass, knife blades, and contaminated waste supplies
- Methods for storing, preparing, and administering drugs, when applicable
- Plans for handling reasonably foreseeable emergencies, including methods for transferring a patient to a nearby hospital
- Plans for emergency patient evacuation and the proper use of safety, emergency, and fire extinguishing equipment
- Plans for training of personnel in cardiopulmonary resuscitation
- Plans for adequately maintaining and cleaning facilities.

REFERENCES AND RESOURCES

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Guidelines for Childbirth Education (1981). NAACOG†

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Hollister Maternal and Newborn Record System (Revised 1980). Hollister, Inc., 2000 Hollister Drive, Libertyville, IL 60048

Joint Statement on Maternity Care (1971); Supplementary Statement (1975). ACOG*

Obstetric-Gynecologic Nurse Practitioner (1979). NAACOG†

Patient Information Booklets, ACOG (Current list of booklets available for the obstetric patient)*

Precis II: An Update in Obstetrics & Gynecology (1981). ACOG*

Technical Bulletins, ACOG (Complete list of technical bulletins issued and updated periodically):*
  Cigarette Smoking and Pregnancy (1979)
  Pregnancy, Work and Disability (1980)
  The Selective Use of Rho(D) Immune Globulin (RhIG) (1981)
  Rubella . . . A Clinical Update (1981)
  Ultrasound in Obstetrics and Gynecology (1981)

Toward Improving the Outcome of Pregnancy: Recommendations for the Regional Development of Maternal and Perinatal Health Services. Committee on Perinatal Health, The National Foundation—March of Dimes (1977)

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* Available through Resource Center, The American College of Obstetricians and Gynecologists, 600 Maryland Avenue, SW, Suite 300-E, Washington, DC 20024.

† Available through The Nurses Association of The American College of Obstetricians and Gynecologists, 600 Maryland Avenue, SW, Suite 200-E, Washington, DC 20024.

APPENDIX 1

Maternal Health Policy

ACOG Statement of Policy as issued by
the Executive Board, December 1977

Excellence in maternal health care is the foundation for the physical, intellectual, social and economic success of any society. It is the basic determinant of the health of future generations.

The American College of Obstetricians and Gynecologists (ACOG) is the representative organization of physicians who are qualified as specialists to provide maternity care for women. The primary goal for the College is the provision of excellence in obstetric and gynecologic care.[1]

The College proposes and supports a policy for maternal health which will provide the best possible care and environment, both medical and social, for pregnant women and for their new born infants at a realistic cost. Maternal health care should also be understood to include the care given to the growing and developing fetus-in-utero.

The ACOG advocates the following items for inclusion in any program of maternal health policy. The policy is presented under the following subjects:

Patient care services
Education and research
Evaluation of effectiveness
Financial considerations

I. **Patient Care Services**
The scope of the patient care services is defined. The services should be provided by competent individuals with a coordination of their efforts. The facilities and equipment should meet the published standards of quality of obstetric-gynecologic care.[2,3,4] The specific programs to provide maternal health care should be developed through regional planning.[5]

A. **The Availability of Services**

1. *Eligibility:* Complete maternal health care should be provided regardless of the patient's age, marital or family status, or financial resources. One level of high quality care should be available to all.

2. *Scope of Services:* Maternal health care must be comprehensive including diagnostic as well as therapeutic services. It also includes:
   a. The emotional and intellectual preparation for parenthood including family planning, antepartum education programs, training in parent-child relationships, and assistance with the socioeconomic problems related to family life. Abortion is a legal choice available to pregnant women and counsel and services related to this choice should be included.
   b. The maintenance in so far as possible of an optimal environment for fetal development. Appropriate diagnostic studies and therapy of intrauterine disorders are also included.
   c. The supervision, under physician direction, of pregnancy, labor, delivery, puerperium and during the interconceptional period.
   d. The immediate care of the newborn, which should be coordinated with the continuing neonatal care of the infant.
3. *Quality of Care:*
   a. The services should be appropriate to the needs of the individual and to the extent required to assure the optimum outcome.
   b. The care should be provided in an atmosphere which is sensitive to the needs of each individual and at the same time maintains the quality and safety of modern obstetric care. In regard to birth itself, the hospital environment best provides for the physical safety of mother and child.
      (1) Family education and participation, with parent-child interaction, should be encouraged when appropriate.
      (2) The environment should be comfortable and dignified. It should encourage privacy and confidentiality and should consider patient expectations.
   c. Early and appropriate utilization of the services should be undertaken by the patient.
   d. Model guidelines of care should be developed.[2,3,4,5] Appropriate services should be provided by competent personnel in facilities which are adequate.
   e. Peers should be utilized in the evaluation of maternal care and in the development of related programs of education.
   f. The quality of the care should not be sacrificed for the sake of cost economies.
4. *Location:* Maternal health care should be readily available on either an ambulatory or in-hospital basis.
   a. Ambulatory care should be available for urgent and for non-urgent problems.

- (1) Non-urgent care (e.g., routine prenatal visits) should be accessible at least every two weeks for all patients. The services may be provided in a private office, in a clinic or in the outpatient department of a hospital.
- (2) Urgent care (e.g., abdominal pain with nausea and vomiting) should be available 24 hours a day within one-hour accessibility for all patients. The services may be provided in a private office, in a clinic or in the outpatient department or in the emergency clinic of a hospital. Hospitalization facilities should be readily available.

b. In-hospital care should be available 24 hours a day within one-hour accessibility for all patients.

c. Consultation, referral, or transport of mother and/or newborn should be available according to an established mechanism.[5]

5. *Physician-patient Relationship:*
   a. Patients should have direct access for maternal care to physicians who assume responsibility for the continuity of their care.
   b. Freedom of choice must be preserved for the individual, both for the patient in the selection of a physician and for the physician in the acceptance of the patient.
6. *Pluralistic Systems for the Delivery of Maternal Health Care:* Maternal health care has been and is provided in a variety of complex systems offered in many different settings.
   a. This multiple approach has the very important strengths of flexibility and responsiveness.
      (1) Continuing improvements in maternal and perinatal health are taking place.
   b. Further innovation and experimentation in systems of care are encouraged.
7. *Economically Realistic:* Maternal health care should be planned and implemented to achieve the maximum health benefits in terms of the available financial resources.
   a. Priorities and expenditure evaluation should be established.
   b. Local development and coordination should be undertaken.

B. Personnel

1. *Types of Personnel:* Maternal health care requires the involvement of many types of personnel who contribute to the welfare of the patient. The following may be included: obstetrician-gynecologist, family physician, pediatrician, anesthesiologist, dentist, certified nurse-midwife, nurse, nurse in extended roles,[6]

respiratory therapist, physical therapist, pharmacist, nutritionist, laboratory technician, childbirth educator, social worker.

2. *Maternal Health Care Team:* Many of the individuals named above may be coordinated into health care teams.
    a. Each team should function under physician supervision.

C. **Facilities**
1. *Standards:* The facilities and equipment should meet the standards of quality of obstetric-gynecologic care as published by ACOG.[2,3,7,8]
2. *Level of Medical Care:* The facilities and equipment should be appropriate to the level of maternal health care which is to be provided at each location.[5]

D. **Regional Planning**
1. *An Essential Element:* The resolution of the maternal health care problems requires the regional planning and utilization of available resources.
2. *The Development of a Regional Plan:*
    a. The planning should be based upon local and regional input.
    b. The professionals who are to provide the maternal care should have significant roles in development and implementation of the regional plans.
3. *Consultation and/or Referral:* Excellent maternal care requires the development of a designated mechanism for obtaining consultations or for patient referral for necessary care.
    a. Such a mechanism is an integral part of any satisfactory program of regional planning.
    b. Satisfactory procedures must be included to facilitate communication and transportation between the providers of care.
4. *Continuing Education:* The plan for the region should include the provision of continuing education, appropriate to the needs of the individual members of the patient care teams.
5. *Guidelines:* ACOG approves in principle the proposals for regional planning contained in the document: *Toward Improving the Outcome of Pregnancy.*[9]

II. **Education and Research**

A satisfactory maternal health policy must provide for the dissemination of our current knowledge for general use by the public as well as for the specific training of those who are or who are to become the providers of care. Intensive research is necessary to develop satisfactory methods to prevent or to treat properly the conditions which threaten the life and safety of mothers and their babies.

A. Education

1. *Education of the Public:* Information regarding human reproduction must occupy a significant part of the basic education of every American.
    - a. *Goal:* Such a program should enable every person to be informed and to know how to provide a healthy environment for a pregnancy and for the birth and development of a child.
    - b. *Time:* The education should begin in childhood, continue through adolescence and extend into adulthood to prepare persons to be parents and thus to be health educators for their children.
    - c. *Place:* The education should be offered in schools, churches and colleges as well as in family settings and in social organizations.
    - d. *Content:* The programs should include:
        - (1) The biology, psychology and ethics of parenthood and of childhood and adolescence;
        - (2) Instruction in the characteristics of an individual in good health together with instruction in the identification of abnormal conditions;
        - (3) The procedures by which preventive and therapeutic medical care can be obtained; and
        - (4) Family life education.
2. *Education of the Professions:*

    The educational programs in human reproduction occurring in schools and colleges should be continued and expanded in the training of health care professionals.
    - a. *Undergraduate:* Education in medicine and in nursing should require academic and clinical instruction in human reproduction.
        - (1) The processes associated with human reproduction affect essentially all of the relationships of life.
        - (2) The relationships and pathophysiologic changes associated with human reproduction constitute significant considerations in the maintenance of, or in the restoration of, health for the patients of almost all medical specialties.
        - (3) Physicians and nurses whose undergraduate training has failed to include adequate education in human reproduction will be handicapped as they attempt to provide adequate care for their patients.

b. *Graduate:* If the necessary maternal health care services are to be available, well qualified professionals must be trained. Educational programs must be supported for:
   1. (1) Careers in reproductive biology.
   2. (2) Certification or degrees in various nursing careers in reproductive medicine.
   3. (3) Residency training in obstetrics and gynecology and in family practice.[10]
   4. (4) Careers in specific areas which bridge the gaps between the various specialties such as obstetrics and anesthesia, obstetrics and pediatrics, and obstetrics and public health.

c. *Postgraduate:* The professionals providing maternal health care should maintain a high degree of competence in knowledge and in performance.
   1. (1) Organized courses in continuing education as well as less structured programs should be supported.
   2. (2) The appropriate geographic distribution of such educational opportunities should be maintained.

B. Research

Progress in medical care is dependent upon adequate programs of basic and clinical research.

1. *Reproductive Biology:* Adequate support is necessary to obtain information and understanding regarding the basic processes of human reproduction. Funding for such research should be awarded solely upon the scientific merit of the proposed investigations.
2. *Clinical Problems:* Investigation should be undertaken regarding specific questions relating to human reproduction. Investigators should include individuals and teams with different training and interests. Broader applications can thus be made to the information which is obtained.
3. *Mechanisms to Provide Maternal Care:* Investigation and experimentation should be undertaken for the improvement of current systems for providing services as well as for the development of new systems and approaches for patient care.
4. *Stability in Funding:* Consistent methods of funding research should be developed and utilized.
   - a. Long-term research goals as well as short-term service goals should be included.
   - b. The funding of such research should permit adequate time to achieve the goals established for the investigation.

Mr. **Sikorski.** Since ACOG is for all providers of obstetrics, they are appropriate and applicable for treatment of low-income women and affluent women, black women and white women. That is your opinion?

Mr. **Brandt.** Oh, sure.

Mr. **Sikorski.** I have questions for Dr. Davis, but, Mr. Chairman, I will take that up in the second round.

Thank you, Mr. Chairman.

Mr. **Dingell.** The Chair thanks the gentleman.

Doctor, the Chair wants to thank you for your presence here today and your assistance to the committee.

The Chair is compelled to bring forth at this time a matter of concern to this committee, and that is matters relative to the production of books, records, papers, and documents. The Chair wants to begin by commending you for your cooperation with the committee. The Chair wishes to express some regret, however, that we had some modest difficulty in achieving the necessary cooperation at an early time.

The Chair feels compelled to sustain with great vigor the right of this committee and other committees, subcommittees, to procure necessary information with regard to conduct of the committees' business and the Congress having information which is necessary for it to legislate. It is always with distress that I find that there is a continuing process of education that this committee must engage in to understand that the departments downtown know that when this committee, and other committees and all the subcommittees of this committee, require information or ask for information or production of books, papers, and documents, that they be forthcoming.

Several areas of particular distress occur to the Chair here in this matter; for example, the communication to this committee which was the original formal response from the department signed by Teresa Hawkes, Acting Assistant Secretary for Legislation. [See p. 277.] She attempted in that communication to see to it that the committee would not receive files or papers which contained information on trade secrets, patient-specific material or grand jury information.

I trust it is not the position of the department that this committee is foreclosed from receiving that kind of information in connection with its legislative inquiries?

Mr. **Brandt.** I will have to provide that information to you, sir. The one area there that I have a great deal of concern about—and will continue to have concern about—is providing medical records that are identified to anybody that the patient has not given us permission to provide them for. That is my major concern.

I personally would have no interest in my medical record being made available to anybody that I didn't know about and that I had not given permission for, and that would be my significant concern.

Mr. **Dingell.** I want to make very clear to you that this committee has gone several quick rounds with a number of high officers of the executive branch, who are no longer present in the executive branch, relative to books, papers, records, and documents. I hope that you will not join that roster of early retirees from the Federal service, because I happen to think you are a good public officer. But I do want you to understand that we have files in this committee that are literally bulging with documents that are sensitive on all matters, patents, private business of high Government and other officials, matters relative to the national security of the United States, and some of the most sensitive defense matters of which I am aware, as well as a whole broad spectrum of trade secrets and other devices. And these matters, I think, are at least as safe in the hands of this committee as they are in the hands of the executive downtown, which seems to have no end to problems with shedding of information into sources and places that the administration doesn't desire.

If you have any position with respect to withholding of documents from this committee, the Chair wants you to understand that we will afford you always full opportunity to cite the authorities under which they may be withheld. But I warn you that this event will always trigger actions by this committee which may ultimately lead to citations for contempt and other matters of this sort which are genuinely unpleasant for all parties involved, especially the person involved in the citation.

So I would urge you to assert your most cooperative spirit and see to it that your agency does likewise when the committee requests information. We always get what we want. It is sometimes at greater or lesser cost from whom we request the information. I just want to make sure you understand that.

Mr. BRANDT. Yes, sir

Mr. DINGELL. I do have some questions relative to one matter. There were a great deal of difficulties with regard to employees bringing papers of the agency in their custody when interviewed by staff members here. This slowed down the process, wasted time of the staff, and wasted time of the people of the agency. It resulted in a situation generally unsatisfactory to all persons, and I hope that that will not be repeated, because if it is, the committee will be compelled to proceed in a different fashion simply to vote subpoenas to require the necessary production of books, papers, records, and so forth, to obviate the unfortunate delays that accompanied the interviews.

I just want you to understand that, Doctor. We are anxious to cooperate with you on terms of your choosing, better or worse.

Mr. BRANDT. All right, sir.

Mr. DINGELL. Now, to get to the substantive question, your testimony, Dr. Brandt, and Dr. Davis, has been very helpful, and I believe that your two agencies can do a great deal to ameliorate the infant mortality problem of this Nation.

Dr. Brandt, your testimony indicates that the Public Health Service knows many ways that the public and private programs can reduce infant mortality.

Dr. Davis, you have acknowledged that the medicaid program is the largest source of payment for maternal and infant care benefits and services, the very services that Dr. Brandt assures us can make a difference.

Reading from, then, your two statements, I gather, Dr. Davis, you agree that Dr. Brandt has offered us a prescription in his testimony for the kinds of medical services that can improve infant mortality rates, don't you?

Ms. DAVIS. Yes. I believe that he is quite competent to judge what is medically effective.

Mr. DINGELL. In other words, we know how to deal with the problem; all we have to do is see to it that a sufficient level of funds and services are available from the Federal and State governments and that progress can be achieved?

[The following information was submitted:]

(Excerpt from "The Role of Medicaid in Delivering Prenatal Care to Low-Income Women," prepared by Margaret A. McManus, consultant, Health Policy, for the Institute of Medicine, Committee for a Study of Priorities for the Prevention of Low-Weight Births, November 1983)

B. Cost Savings

Several reports of cost savings of Medicaid-financed prenatal care have been documented in testimony before Congress and in recent reports on the impacts of Medicaid costs. They are abstracted below.

- The Texas Department of Health found that Medicaid-eligible pregnant women had $210 fewer birth-related expenses than mothers who were not eligible for Medicaid until after delivery. (1981 state Medicaid data of over 9,000 births were examined.)
- In a recent administrative petition to DHHS Secretary Margaret Heckler, from nine California-based petitioners, the annual cost of not providing comprehensive maternity care to poor women was estimated to be approximately one-half billion dollars (Blackwell, June 1983). They calculated that $2 could be saved for every dollar spent on maternity care, as a result of a decreased need for newborn intensive care, rehospitalization of sick infants, and long term care costs of chronically ill children. (See below for more information on how these figures were calculated.)
- Dr. Robert Goldenberg, an Alabama obstetrician, testified before the Senate Finance Committee (April 1, 1981), that several researchers have estimated as much as $5-10 savings for every dollar spent on maternity care.
- In a study of 149 women receiving inadequate prenatal care, health officials in Oregon estimated that the cost of care for their five high-risk premature infants at $150,000 could have better been spent on providing comprehensive prenatal care to all 149 women (Curry, 1982).
- Ohio's Children's Defense Fund calculated that for every $2 million invested each year in prenatal care for at least 25 percent of the 22,000 women who are pregnant each year but are not served by Ohio's patient care clinics, some $8 million dollars would be saved (Lazarus, W., 1983).
- The Harvard School of Public Health in a 1978 study found that for every dollar spent on prenatal care, $3 were saved from reduced hospitalization.

- The federal government cited reports that every dollar spent on prenatal care yields $4 in savings due to decreased hospitalization and long-term care for handicapped infants.

- The state of Missouri looked at a range of maternal and infant characteristics by mean Medicaid Paid Claims for 1980 (See Table 18). They found a $42 difference in the delivery costs of mothers who received adequate prenatal care versus those with inadequate prenatal care. "This differential means that inadequate prenatal care costs the Missouri Medicaid Program about $155,000 each year." (Missouri Monthly Vital Statistics, 1982).

- Florida estimates that they saved $7 million in state expenditures by increasing Medicaid coverage for certain groups of women and children.

- In successfully arguing for the adoption of a limited medically needy program for pregnant women and children, Mississippi states that the program would cost the state $4 million versus $10 million that is presently being spent on state-financed hospital bad debts.

In a 1982 study by Carol Korenbrot, cost savings were analyzed using data from the "OB Access Project," as shown in Table 19. She examined the cost of care of children as a function of their birthweight, averaging frequency and cost per case for newborn intensive care, infant hospitalization, and institutionalized care of developmentably disabled. For infants weighing greater than 2,500 grams (non-low birthweight infants) she calculates the total expected cost to be $4,940 (in 1982 dollars). This contrasts sharply to the total expected costs for an infant weighing less than 1,000 grams--$72,170. Korenbrot writes (Memo, 1983):

> Associated with this shift in birthweight distribution, Medi-Cal expenditures for neonatal intensive care costs can be expected

to decline $510 per neonatal survivor. Expected savings for infant rehospitalization avoided with birthweight improvement can be expected to be $40 per neonatal survivor. Total expected savings to Medi-Cal per neonatal survivor are greater than $550. Since the state pays half these costs, the savings to the state are greater than $275.

C. Health Status Improvements

The infant mortality rate in 1965 (the year Medicaid was passed) was 25 deaths per 1,000 live births. Seventeen years later, it is 11.2. While it is difficult to separate out each specific reason for this improvement (e.g., better nutrition, improved medical care, sanitation), the inception and growth of publicly financed health has coincided with both increases in access to care and improved health status.

The Congressional Budget Office (1981) even reports that since the passage of Medicaid there have been fewer deaths among low income women receiving prenatal services through Medicaid during their first pregnancies than among other pregnant women in states not providing these services.

In a new book on the impact of medical care on health status improvements, Jack Hadley found that better health, in terms of reduced mortality rates, does result from more medical care use.

Ms. **Davis**. Mr. Chairman, when you were not in the room, Dr. Brandt was clarifying for the committee the fact that while we do know a great deal about how to deal with various parts of the issues, the problems are still there and the solutions are as yet forthcoming.

Mr. **Dingell**. Research is good, and the Chair always applauds research in important areas. But the Chair is always interested in seeing to it that research which will benefit a difficult, dangerous or unfortunate situation is supported in order to address the question.

I am anxious to see research go forward. I support it in the National Institutes of Health wholeheartedly and other research inside the Federal Government.

But I would like to address with great specificity the application of existing medical knowledge as opposed to research which may or may not benefit somebody several generations in the future.

Can we address ourselves, then, to the question of medicaid, which is obviously the largest contributor to our efforts, which can assure that everyone can afford effective medical interventions? I believe this is a fact, is it not?

Ms. **Davis**. Yes, sir.

Mr. **Dingell**. Dr. Brandt?

Mr. **Brandt**. Yes. Certainly, medical intervention early on in the pregnancy can have an impact.

Mr. **Dingell**. Now, Dr. Davis, your agency spends about 10 times as much as the Public Health Service on maternal and child care, does it not?

Ms. **Davis**. Yes, I would believe that is fairly accurate.

Mr. **Dingell**. But regrettably I gather that it is almost impossible to use medicaid data at either the State or Federal level to know if the kinds of interventions recommended by Dr. Brandt are being used; is that correct?

Ms. **Davis**. We collect our medicaid data in about 17 different categories, Mr. Chairman. For us to disaggregate them even into other areas I think would be extremely difficult. We don't disaggregate by disease entity or by the type of procedure. When we look at expenditures, we can tell how many dollars we are spending for inhospital care or outpatient care, but within that we cannot track which ones are prenatal or delivery-type services.

Yes, I think it would be enormously expensive for us to institute a system that would disaggregate to that level.

Mr. **Dingell**. Dr. Brandt, in fact, HCFA has rarely, if ever been a major user of the Public Health Services research results on how to reduce infant mortality , is that correct?

Mr. **Brandt**. I have to say that I don't know precisely how much of our information they use. We provide our data primarily to the practitioners and providers of care who are out there. They are ultimately the ones that have to apply the information, not the people who pay the bills.

Mr. **Dingell**. Now, Dr. Brandt, for your part, you have not made any special—I gather your agency has not made any specialized organized effort to get the largest Government payer, medicaid, to implement your recommendations for improving infant mortality, is that correct?

Mr. **Brandt**. No, sir.

Again, as I say, we have dealt, principally with the providers to try to get them to use it. That has been the approach we have taken.

Mr. **Dingell**. So medicaid is not really getting any organized effort by your agency to bring your recommendations with regard to infant mortality to the attention of that agency?

Mr. **Brandt**. No, sir.

Mr. **Dingell**. This is, I think, rather unfortunate. It appears to be a significant problem in terms of moving information into the place where the information can be applied. I find this almost as troublesome as I do the continued efforts of the administration to reduce the level of funding and services going into programs which would alleviate the problem of infant mortality.

Mr. **Brandt**. The information, sir, will be applied by the providers who provide care. That is the people that we contact. We do not work with Blue Cross, Prudential, or any other insurance company to try to effect changes in health status. We work instead with the public and with providers who have to adapt and provide the services.

There is no reason we can't work with HCFA to do that, but I think the basic change will be when the providers of care and the recipients of care are working together to effect as good a pregnancy as one can get and that, it seems to me, is the final analysis of the real advances.

Mr. **Dingell**. Of course, the funders of this, the principal funder inside Government, is medicaid. They are, I guess, about three floors below you in the office.

Mr. **Brandt**. Four, to be exact.

Mr. **Dingell**. Is it four?

Mr. **Brandt**. Yes.

Mr. **Dingell**. All right, four.

But you are not talking to them and you know, I applaud your efforts to communicate with other folks in the supply chain, but the people who craft the programs, deal with the funding, are not receiving the benefits of your advice.

Mr. **Brandt**. Yes; you are correct in this area.

Mr. **Dingell**. I guess it is almost as important that they get it as OMB. I don't want to fault you for the failures of OMB, you work for them as opposed to the other way around. I am sure you communicated with those good folk. But they seem to need a great deal more information than they have on this subject.

Mr. **Brandt**. We will, in fact, communicate, Dr. Davis, and I, and our people, will get together.

Mr. **Dingell**. Thank you, Doctor.

The Chair will observe that I think it will be necessary for the record to be kept open for additional insertions both by you, Dr. Brandt, and Dr. Davis, and the committee. I want you to know you participated in what I regard as a very helpful hearing in a useful and valuable fashion and I want you to know of my personal appreciation in spite of the little difficulties I mentioned earlier

Mr. **Brandt**. Thank you.

Mr. **Dingell**. The Chair will recognize my friend from Texas, Mr. Leland.

Mr. LELAND. Mr. Chairman, I don't know what our time standards are at this time, but I would like to ask one question of Dr. Brandt.

Dr. Brandt, we have talked extensively about the gap between black and white infant mortality. Are there statistics that deal with the gap between black—Hispanic and white infant mortality?

Mr. BRANDT. We can certainly provide that data, yes.

The answer to your question is yes, there are data available on other racial groups. We can certainly get that information to you.

Mr. LELAND. I wish you would for the record.

Mr. BRANDT. Fine; we will do that.

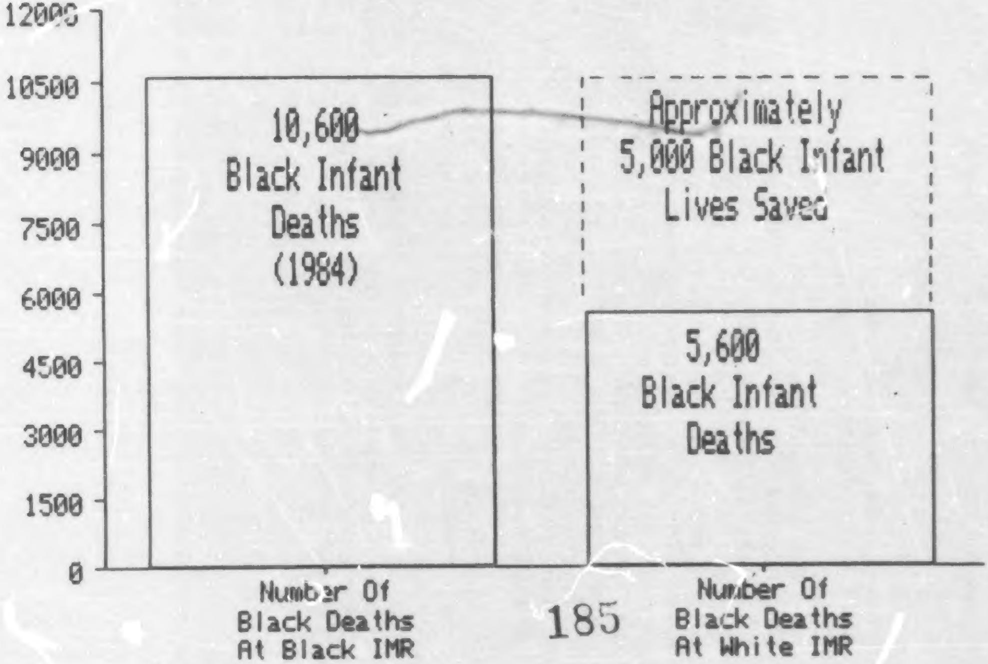
Mr. LELAND. I would like to ask one additional question. I have a chart, Dr. Brandt, and I understand that you are an expert in biostatistics. This chart estimates that the black-infant mortality rate this year, 1984, will be about 18 deaths per 1,000 live births, and the white rate, about 9.5 deaths per 1,000 births. It also assumes there will be about 590,000 births to black women in 1984. These rates are just estimates, but let's assume they are in the ball park. The chart points to an estimated excess death of black infants in their first year of life. At the rate of infant mortality estimated for 1984, 10,600 black infants will die. If blacks had the same infant mortality as whites, only 5,600—nearly half as many—would die.

That means about 5,000 more black infants will die this year because of the higher death rate.

I am concerned about this startling statistic when we can reduce that amount significantly if we got to the people who are most affected by inadequate prenatal care and education.

[The chart referred to follows:]

Estimate Of "Excess" Deaths To Black Infants In First Year Of Life: 1984



Mr. **Brandt**. I don't know how much you can reduce it, Mr. Leland, because as I point out in my testimony, if you take a group of comparable black women and white women who are college educated, married, receiving total prenatal care from the first trimester all the way through, the rate of infant mortality is still twice as high in black women.

Mr. **Leland**. You don't think it has to do with genetics, do you?

Mr. **Brandt**. I don't know what it has to do with, but what I am suggesting to you is that I would agree that getting more black women into good prenatal-care systems is going to reduce the black-infant-mortality rate. I have absolutely no doubt about that at all.

But I am not convinced that we can reduce it to the white rate with the current state of our knowledge because I don't know what the rest of the problem is. That is the difficulty that we face today.

It does not say do nothing. It does say that we can save some of those 5,000 black infant lives that you have projected and I would agree that that is a reasonable projection, but I am not convinced at this point in time that we have the ability to save all of them, unfortunately.

Mr. **Leland**. Thank you, Mr. Chairman.

Mr. **Dingell**. The Chair thanks the gentleman.

The gentleman from Minnesota.

Mr. **Sikorski**. Thank you, Mr. Chairman.

Dr. Davis, let's review what the medicaid programs can do about infant mortality. Isn't it true that increases in eligibility can increase the number of pregnant women and infants who can receive proper care?

Ms. **Davis**. As Dr. Brandt said, there is indeed some level of increase when you give these services to pregnant women. On the other hand, the caveat is there—as you have heard over and over from Dr. Brandt—that this may not be the sole solution to the problem.

Mr. **Sikorski**. I didn't ask whether it was the sole solution. Similarly, increases in enrollment can increase—in fact, I have never seen a sole solution around, never seen absolute, perfect information because it is quite impossible by definition.

But similarly, increases in enrollment can increase the likelihood that medicaid eligibles will receive needed services—prenatal care, for example. Is that true also?

Ms. **Davis**. Yes.

Mr. **Sikorski**. Are you aware that in some parts of the country access to services is not assured because the physicians in the community who might provide obstetrical services are not participating in the medicaid program?

Ms. **Davis**. I think there are a number of factors that one has to consider. There have been some studies done recently relative to participation rates. We had a study completed in April 1983 from the Urban Institute which does indicate that as the supply of physicians increases——

Mr. **Sikorski**. There is a HCFA-funded research study.

Ms. **Davis**. That was a HCFA-funded research study.

Mr. **Sikorski**. There is another point that the primary cause of low physician participation was low reimbursement rates, is that correct?

Ms. **Davis**. That is another factor involved.

May I make one other comment?

Mr. **Sikorski**. Certainly.

Ms. **Davis**. Physicians are not the only ones that deliver prenatal-care services. About 36 States have now filed State-plan amendments that recognize the provision of nurse/midwife services. So, although a particular geographic area may have a shortage of physicians or they may have physicians who are not available for that medicaid program, through the use of the nurse/midwife program, they may still be able to provide those services.

Mr. **Sikorski**. But we know there are gaps and your own regulation, 42 CFR 447.204, requires that States' medicaid programs, and I quote:

> Be sufficient to enlist enough providers so that services under the plan are available to recipients at least to the extent that those services are available to the general population.

Can you describe for us and for the record in as much precision as you can the steps taken by your agency to monitor and enforce compliance under this provision and the degree or success of these efforts?

Ms. **Davis**. Mr. Sikorski, we rely upon the States giving us the evidence that they do have an adequate supply and access. Again, I would say that in the area of prenatal care, one has to judge not just the availability of the physicians. Given the fact that some 36 States, and I believe there are another 4 or 5 pending, are using the nurse-midwives, one has to put that into the entire equation.

Mr. **Sikorski**. I am sure there are still big gaps between the services needed and the services available. I know your background is in nursing and not in law, and I am sure your general counsel has advised you that this regulation amounts to a mandatory duty for States and that the authority and responsibility to enforce this duty is yours. You are aware of that, are you not?

Ms. **Davis**. Yes, we are aware of the fact that we do need to keep track of those activities, but the entire spectrum of the delivery of the prenatal——

Mr. **Sikorski**. I am not debating that point. I am talking about the provision in 42 CFR 447.204 that talks about providers and services matching this prenatal need that we have heard described here and we know exists, in that the final authority, the final responsibility, comes back to you and your office.

Ms. **Davis**. Well, again, I think that so long as we can assure ourselves that those services are available, the question of exactly where in terms of access point is one that has to be somewhat debated, and it is a judgmental factor.

Mr. **Sikorski**. But your first premise in your syllogism is as long as we can assure ourselves that those services are provided. Are you telling this committee that those services are available across this country, there are no gaps?

Ms. **Davis**. I think that overall we feel that the programs that we have put in place for the medicaid population are working. I cannot say that there are no gaps, but that, in effect, the State needs to, as it looks at the variety of ways in which it provides that service, make determinations and then guarantee to us that the medicaid population that it will cover does receive those services.

Mr. Sikorski. So you are convinced there is no gap between the coverage and the services that are available. The providers are there, and if someone is on Medicaid and doesn't receive a service, it has nothing to do with provider gap?

Ms. Davis. In relationship——

Mr. Sikorski. As your own studies point out.

Ms. Davis. In relationship to the prenatal care area?

Mr. Sikorski. Yes.

Ms. Davis. I think that using the combination of the services from the two profile groups, it appears that there is overall adequacy within the States. There may be geographic areas within the States that might have some access problems.

Mr. Sikorski. Maybe you can provide us for the record any gaps that you see existing in this delivery system and then what efforts you have taken or are taking to ensure that those gaps are eliminated.

Ms. Davis. I will certainly look and see what data we have that would indicate those kinds of things. I am not certain that our data will adequately describe that. We will see what we can provide.

Mr. Sikorski. Mr. Chairman, I think it would be helpful if the record were held open.

Mr. Dingell. Without objection, so ordered.

[The following information was received:]

The Subcommittees request information on the following two questions:

1) Are Medicaid-eligible women experiencing difficulties with access to prenatal care providers?

2) How does HCFA assure Medicaid recipient access to prenatal care?

IS THERE A PROBLEM?

HCFA cannot determine the extent of the difficulties that Medicaid-eligible women experience with access to prenatal care. This is because data on Medicaid eligibles and services is not reported by specific diagnosis. For example, Medicaid expenditures for "physicians' services" or "inpatient hospital services" can be enumerated; however, treatment costs by individual diagnosis (e.g., prenatal care) or by specialty (e.g., obstetrical services) within a general category of service cannot be disaggregated.

For the general Medicaid population, several studies funded by HCFA have shown that:

- the majority of recipients are satisfied with the medical care they receive;
- despite problems of nonavailability of physicians in some geographic areas, most recipients are able to see a physician when needed; and
- physician participation levels vary by State and depend on a number of factors, including reimbursement rates, administrative paperwork, scope of benefit package and eligibility coverage, and timeliness of claims processing.

For the information of the Committee, these specific studies and their findings are provided below:

1. The Effect of Reimbursement Arrangements on Physicians' Services and Incomes from Medicare and Medicaid. The Urban Institute 4/83.

   Examined the effects on physician participation in the California Medi-Cal program of a physician reimbursement freeze in 1974-76 and an increase in primary physician rates in 1976-78.

   Pertinent findings include:

   - Despite controls, rates of physician participation and provision of Medi-Cal services increased for most specialties (attributed to an increase in physician supply in California); and
   - Increases in fees had a major impact on the supply of Medi-Cal services. Increases in the supply of physicians also increased the number of services provided to recipients.

2. Variations by State in Physician Participation in Medicaid Programs. American Academy of Pediatrics 10/82.

Examined State variations in pediatric participation in 13 Medicaid States.

Pertinent findings include:

- 85 percent of pediatricians participate in Medicaid;
- Physicians' participation is influenced by the demand for both Medicaid and non-Medicaid services and the supply of health care resources; and
- More physicians participate in States with higher reimbursement levels, quicker claims payments, less restrictions on coverage, fewer requirements for prior authorization, fewer fluctuations in eligibility, and generally less restrictive policies.

3. Physician Participation in Public Programs. Center for Health Economics Research 9/81. Conducted multivariate statistical analysis of Medicare and Medicaid program characteristics which affect physician entry and level of participation in these two public programs.

Pertinent findings include:

- A 10 percent increase in Medicaid fees raises physician participation 4 percent. Higher third party payments, e.g., Blue Shield, will reduce participation in the public programs;
- Imposition by States of utilization limits and prior authorization for payment lowers participation, especially for specialists;
- Quick claims payment encourages physician participation; and
- Physician participation is higher in States offering broader eligibility coverage.

4. Availability of Physician Services to Medicaid Beneficiaries. Service Delivery Assessment, Department of Health and Human Services, Office of the Inspector General, 8/80.

Survey of recipients and providers in 10 States to assess whether Medicaid clients have adequate access to physicians' services and to obtain information from participating and non-participating physicians regarding their experiences with and attitudes toward the Medicaid program and its beneficiaries.

Pertinent findings include:

- 96 percent of Medicaid clients say they are satisfied with the medical care they receive. Most clients (78 percent) believe that the quality of care they receive is about the same or somewhat better than the care afforded private paying patients;

- Medicaid clients compare favorably with non-Medicaid low and upper income clients in terms of physician accessibility. They visit doctors more frequently and schedule appointments more promptly than either of these comparison groups;
- Despite problems of non-availability of physicians in some geographic areas, most clients are able to see a physician when needed, although not always a private office-based physician; and
- Clients report very few refusals or discouragements in seeking care. Six percent say they have been refused care because of their Medicaid status, and 6 percent say doctors' staff have discouraged them from making an appointment.

MONITORING PROCESS

Again, due to data constraints, HCFA cannot monitor for access problems that Medicaid recipients may experience in seeing individual providers based on specialty or diagnosis.

Institutional Services

In general, recipient access to institutional services, such as those provided in hospitals or nursing homes is monitored by HCFA through a review of Medicaid plan submissions from States on their institutional reimbursement methodologies.

Section 1902(a)(13)(A) of the Social Security Act as amended by the reconciliation acts of 1980 (section 962) and 1981 (section 2173) requires that a State plan for medical assistance provide for the reimbursement of inpatient hospital services and long term care facility services through the use of rates which the State assures are reasonable and adequate to meet the costs of an efficiently and economically operated facility to provide care in conformity with applicable State and Federal laws, regulations, and quality and safety standards. The State must also assure that individuals eligible for medical assistance have reasonable access (taking into account geographic location and reasonable travel time) to inpatient hospital services of adequate quality.

This provision is intended to allow States flexibility in adjusting reimbursement rates in response to changing fiscal conditions. The statute and implementing regulations require the State to submit satisfactory assurances that it has found that its methods and standards result in rates that are reasonable and adequate. In support of this assurance and finding, a State must also submit with the assurance an estimate of the effect the change in the rate will have on the availability of services, type of care furnished, and the extent of provider participation. A State may not amend its reimbursement methodology if the proposed change will result in rates that are not reasonable and adequate. For example, a State which follows Medicare's principles in their entirety may not provide for a unilateral reduction in payment rates, since the reduction will be imposed on every facility in the State regardless of the actual reasonable and allowable costs incurred by the facility. A State also may not reduce the rates payable to facilities based solely on budget considerations.

Prior to the enactment of section 2173, only 12 States had implemented alternative reimbursement (other than Medicare) systems for inpatient hospital services. Subsequent to the enactment of section 2173, to date an additional 20 States and the District of Columbia have submitted alternative plans for reimbursing inpatient hospital services under Medicaid. Thus far, two (New Hampshire and Nebraska) of the proposed plan amendments for inpatient hospital services submitted to HCFA have been disapproved for failing to result in rates that are reasonable and adequate. In addition, of the over 200 plan amendments submitted by States concerning reimbursement for long term care facility services, HCFA has disapproved three plan amendments (Missouri, Nebraska, and Illinois) since the States did not submit a satisfactory assurance that the rates were reasonable and adequate. HCFA has also disapproved three amendments which would have included in the plan costs not related to patient care (Maryland and New York).

The statute also requires that the methods and standards developed by a State take into account the situation of hospitals which serve a disproportionate number of low-income patients with special needs. Therefore, a State plan may provide that reimbursement to certain specialized facilities, such as a children's hospital, may be reimbursed at a higher rate than other facilities in the State. (For example, the State of Utah has provided for a separate reimbursement methodology for the Primary Children's Medical Center.)

Noninstitutional Services

Access to Medicaid services provided to recipients in noninstitutional settings by such providers as physicians, HMOs, or clinics is monitored by the States in consultation with State and local medical societies through their licensing and rate-setting functions. Thus far, we believe the States have performed this monitoring responsibility well, as indicated by recipient responses in the studies cited earlier.

Although we have no specific evidence that accessibility to prenatal care provided by a physician is a problem for Medicaid patients, we would note that through a provision in the Omnibus Reconciliation Act of 1980 (P.L. 96-499), States are now required to pay for the services of a nurse mid-wife to the extent that (s)he is authorized to practice under State law. Currently, 36 States cover these services. We expect that this new type of provider has greatly increased accessibility to the full range of pre- and post natal services available to low-income women eligible for Medicaid.

FUTURE ACTIVITIES

Additional HCFA-funded research on physician participation in the Medicaid program is currently being conducted through a joint contract with the National Opinion Research Center and Health Economics Research. The purpose of the study is to update research (cited earlier in 1981) on factors that affect physician participation in the program. We anticipate that data from this survey will aid in the determination of the net impact of such factors as growing physician supply and new DRG payments on overall physician participation and in the assessment of differential specialty and regional participation rates on access to care. Final results are due in June 1985.

HCFA is also beginning a major data collection effort on overall provider participation, including physician participation, in the Medicaid program. A new report on provider participation in the Medicaid program is to be prepared by each State Medicaid agency for annual submission to HCFA, beginning on April 15, 1984.

The provider participation report will provide basic nationwide information on the participation of various health care provider groups in the Medicaid program. The report will request the number of providers by type (e.g., general hospital or physician) who were reimbursed by the State Medicaid agency in the calendar year. For each provider type, the number reimbursed will be distributed across specified dollar intervals based on payments to each provider.

The data in the report will be used by HCFA:

- to better understand the current service delivery system in each State;
- to monitor the effects of Federal and State program changes on participation rates of various provider groups; and
- to respond to Congressional and public inquiries concerning the number of participating providers.

Data from the report will be available in July 1984 for the Calendar Year 1983.

TABLE 1: Medicaid Participation by Specialty

Specialty	Average Medicaid Participation Rate (%)	Physicians Who Treat No Medicaid Patients (%)
Primary Care	13.3	21.6
General Practice	13.5	24.3
General Surgery	14.3	8.4
Internal Medicine	14.5	18.1
Obstetrics/Gynecology	8.3	36.8
Pediatrics	14.3	24.1
Medical Specialties	9.0	32.2
Allergy	6.1	40.0
Cardiology	8.7	39.2
Dermatology	11.1	26.1
Gastroenterology	10.0	15.2
Surgical Specialties	13.3	15.3
Neurosurgery	10.9	18.3
Ophthalmology	14.4	12.4
Orthopedic Surgery	10.7	19.8
Otolaryngology	16.2	13.2
Urology	14.3	14.1
Psychiatry	8.0	39.9
ALL	12.7	22.6

Source: Mitchell, Janet B. and Jerry Cromwell, *Medicaid Mills: Fact or Fiction*, HEALTH CARE FINANCING REVIEW 1:37-49, Summer 1980.

Mr. **Dingell**. The Chair observes that there may be a good many insertions that may be necessary for the record. Without objection, the record will remain open for those too.

Mr. **Sikorski**. Dr. Brandt, in our discussions today, you have expressed reservations based on the limits of our knowledge. There are many things we don't know.

I would like to go on to the question of research, but before I do, I want to be sure you agree that just because we have urgent research questions, it would not be prudent to avoid or delay doing those things that we do know will work to protect mothers and babies. Do you agree with that?

Mr. **Brandt**. Sure.

Mr. **Sikorski**. I sense from your testimony that you are eager to proceed with the research agenda, but I hope you will acknowledge that it can be productive on two fronts: first, efforts to answer unresolved questions about the etiology and biologic mechanisms that produce low birth weight and thus infant mortality; two, efforts to study interventions themselves—whom they should reach, when, and what effects can be expected.

This second is really the clinical epidemiology of the prevention of infant mortality. Though you might formulate it differently, this suggests that many parts of the Public Health Service can contribute to our knowledge—NIH, ADAMHA, HERSA, and CDC. Do you agree?

Mr. **Brandt**. Yes, sir.

Mr. **Sikorski**. One area of research has been the focus of much controversy. Maybe your testimony today has ended that controversy. Let's review how the department reacted to the efforts of outside groups to analyze the infant mortality statistics.

On July 1, 1983, the Director of the Division of Analysis wrote a memo to the Director of NCHS. I direct your attention to that memorandum, page 1, paragraph 1. Do you have it?

Mr. **Brandt**. I don't know whether I do or not.

Mr. **Sikorski**. This paragraph was written in response to a telephone survey of 50 city health departments conducted by the Public Advocates:

> The basic conclusion of the analysis was that black and white infant mortality rates and low birth weight—LBW—ratios are diverging. This part of the report was fairly reasonable, although I believe too much was made of the very small increases in the black-white differential (e.g., the relative risk increased from 1.83 to 1.91 between 1970 and 1979). It should also be noted that the latest 1980 data show a further increase in the relative risk to 1.95. Nevertheless, there is no question that over the past 15 years the black rate remains considerably higher than the white rates, and there is no sign that it is decreasing more rapidly (unless an arithmetic difference is used which in this situation seems inappropriate).

In the same document, on page 2, Kleinman states:

> I think we are subject to a great deal of criticism for lagging so far behind in the provision of vital statistics and in monitoring of small area data across the country.

He then went on to propose new systems to replicate what the authors of the petition did. He states that the availability of the natality data he proposes:

> will enhance our ability to monitor prenatal care and low birth weight, important indicators of infant health and access to care. The availability of a natality sample would also allow for provisional mortality rates to be calculated by race. [See p. 194.]

You do agree, do you not, that this sort of information is useful for the purposes Dr. Kleinman states here?

Mr. BRANDT. Yes.

Mr. SIKORSKI. But that funding for the NCHS requested for vital statistics improvements, never appeared in the President's budget or was delayed; is that correct?

Mr. BRANDT. No, sir, that is not correct. As a matter of fact, it is in the fiscal year 1984 proposed budget that we are currently operating under, and it is part of the 1985 request; it was delayed.

Mr. SIKORSKI. It was delayed from 1981.

Mr. BRANDT. That is correct.

Mr. SIKORSKI. And some parts still remain unfunded?

Mr. BRANDT. That is correct. There is a 3-year plan that we are currently in the first stage of implementing this year, 1984.

Mr. SIKORSKI. But if the budget request had been funded in a timely manner, the Federal Government could be sharing data rather than criticizing unfunded nongovernmental efforts to do our job?

Mr. BRANDT. Well, that is a conclusion that you could certainly draw. It was not mine; I would like to make that clear, but we—the basic issue with all of this has to do with the issue of getting the data from the States.

You know, the Federal Government does not produce these kinds of data. They are actually produced in the local community, brought up through the States, and brought to us, and we then analyze it, send it back to the States and the local communities for their use.

Mr. SIKORSKI. As I understand what we have just talked about, your research director was ready to do it, and it was just a question of delayed priority in the funding and then still insufficient funding.

Mr. BRANDT. Well, beyond that.

Mr. SIKORSKI. But it didn't stop your department from criticizing the people that came in with the best analysis they could do.

Thank you.

One last comment, Mr. Chairman.

On the chairman's point, the letter from Theresa Hawks—is Theresa Hawks here? It states that you people would be looking to provide our subcommittee with information, but not information to which access would be restricted by law. I hope someone will define that for us and submit that for the record so we know what your guidelines and what your definition of the law is for any followup of future investigations.

I do know that we have had a difficult time getting information. The testimony was a day and a half late and ended up over at the Old Executive Office Building for some reason, and I see in the paper this morning that you sent 200 copies of the testimony to the Select Committee on Aging, which may not be a problem, except we are talking about infant mortality, and it seems unusual that we would be sending it over to the Select Committee on Aging.

I hope this type of thing is eliminated in the future.

Mr. BRANDT. I have no idea what you are even talking about at the moment. I will be glad to——

Mr. SIKORSKI. Two House subcommittees——

Mr. **Brandt**. Your staff has more documents that I have about the Public Health Service and if they don't mind giving me a copy of that——

Mr. **Sikorski**. If that is the case, it is a sad state of affairs, and this is a good example why, if you have got medical files of someone in your office, they are only there because you are doing your job. It is a public job, and we have oversight authority over that. There is no reason that we don't have access.

That doesn't mean that they can't be restricted in some way to protect the confidentiality, but when you have documents over there doing the public business, we are to make sure that you are doing the public business, and there is no reason to withhold those.

Mr. **Brandt**. As far as I know, you have all the documents, that I am aware of, that were requested. I wasn't aware of everything, because some of the information was communicated directly to people by the staff who was coming around, and I didn't know anything about it, and neither did anyone else except the person contacted—beyond who was interviewed and I don't care to know who was interviewed.

Mr. **Sikorski**. The NCHS budget wasn't delayed?

Mr. **Brandt**. That was, so that you could, in fact, get the total information, yes.

Mr. **Sikorski**. I caution people from making absolute statements about the free flow of information and the great quantity unless and until you understand all the problems that this subcommittee staff has had in getting the information.

Mr. **Brandt**. All right, sir.

Mr. **Leland**. The Chair would now like to recognize for 20 minutes the gentleman from Utah, Mr. Nielson.

Mr. **Nielson**. I won't take 20 minutes. The allocation of time is somewhat like the allocation of committee slots on this committee.

Mr. **Leland**. Fair and just.

Mr. **Nielson**. No, not fair at all.

Let me indicate two things. First of all, every document requested by this committee was provided. I think that should be made clear. Second——

Mr. **Sikorski**. Will the gentleman yield?

Mr. **Nielson**. No.

Mr. **Sikorski**. You won't yield on your statement?

Mr. **Leland**. The gentleman does not yield.

Mr. **Nielson**. All right. I yield.

Mr. **Sikorski**. On what basis are you making that statement?

Mr. **Nielson**. Every document requested was delivered.

Mr. **Sikorski**. That information is from whom?

Mr. **Nielson**. My counsel.

Mr. **Sikorski**. Was it delivered in a timely fashion?

Mr. **Nielson**. You made mention of the day-and-a-half delay on one, and Mr. Dingell made some comments——

Mr. **Sikorski**. How about 2 weeks for xeroxing?

Mr. **Nielson**. I don't know about that.

Mr. **Sikorski**. Then I caution everyone, then, including myself, from making absolute statement with regard to these documents.

Mr. **Nielson**. The statement I made is that every document that was requested was provided. If they were late, I apologize for that.

This committee has been late on some things as well. We didn't know Dr. Taylor was going to testify. For some reason, he has not been called up for questioning.

Mr. LELAND. We are going to call him up.

Mr. NIELSON. About 2 o'clock?

Let me ask the question I would have asked Dr. Taylor. He can respond to it later if he wants to.

Do you know, Dr. Brandt, of any studies that would corroborate Dr. Taylor's statement that birth-weight deficiencies are related to economic depressions and lack of income? Do you know of any blips that have occurred on the line from 1933 or to show the mortality rate to go up and down with economic conditions?

Mr. BRANDT. No, sir.

Mr. NIELSON. For the record, I would like Dr. Taylor to answer that same question, if he would.

If there was such a link, shouldn't it have been obvious through mortality increases from 1932–40?

Mr. BRANDT. I might point out that during times of recession, according to studies done and funded by the National Center for Health Services, the actual number of patient visits to physicians increases, not decreases.

Mr. NIELSON. Mr. Chairman, I would like to insert in today's hearing record, by unanimous consent, summaries of research projects into infant mortality funded by the Department of Health and Human Resources in fiscal year 1983. Much of this research was done at such prestigious academic institutions as the Johns Hopkins University, Columbia University, and the University of Washington.

One of the studies examines the outcomes of two different forms of pregnancy care, comparing birth outcomes in a maternity center with births in a tertiary care facility. Another research grant involves the study of the effects of electronic fetal heart monitoring and fetal scalp blood sampling versus traditional monitoring of the fetal heart rate in premature infants.

Mr. LELAND. Without objection.

[The studies referred to may be found in subcommittee files.]

Mr. NIELSON. I would like to apologize if I offended you, Representative Sikorski. I did feel that your testimony and your questioning had a certain harassing tone to it, and I objected to that, in view of the fact that the documents, even though late, were submitted.

Mr. SIKORSKI. If the gentleman would yield, I thank you for that comment, and I think it is important for all parties on both sides to protect the legitimate function of this body, and I am sure that in the future that relations in this mode will be better with the Health and Human Services because of it, and thank you.

Mr. NIELSON. I would like to congratulate the witnesses and thank you, Mr. Chairman.

Mr. BRANDT. Mr. Chairman, could I—as a part of the record, I would like to develop the information behind this internal memorandum from Dr. Kleinman to Dr. Feinleib, since I am seeing it for the first time at this moment.

I can assure you, Mr. Sikorski, that there was, as far as I know, absolutely no attempt to delay, other than one example that I know of where material inadvertently was not put on a bus and did not come down and took some time, about which there were a lot of complaints.

I don't know how to deal with that problem. Perhaps someone else does, but I can assure you that it won't happen to me again.

Mr. LELAND. Dr. Brandt, that memorandum will be submitted for the record, and any other information that you wish to submit.

We want to thank you both for appearing this morning.

[Testimony resumes on p. 221.]

[The following material was submitted:]

DEPARTMENT OF HEALTH & HUMAN SERVICES

Memorandum

Date July 1, 1983

From Director
Division of Analysis, OAEP

Subject Congressional Hearings on "Prevention Strategies for Healthy Babies and Healthy Children"

To Manning Feinleib, M.D., Dr.P.H.
Director, NCHS

On Thursday, June 30, Dr. Brandt testified before the Prevention Strategies Task Force of the House Select Committee on Children and Families. The testimony was written by HRSA staff early Monday and, upon request late Monday morning, Jennifer Madans went to a briefing for Dr. Brandt on Monday afternoon. We supplied a few numbers for the testimony (including previously unreleased 1980 final infant mortality rates by race). Late Wednesday afternoon, however, a new uproar was raised when OASH received a copy of a petition from Public Advocates, Inc., on behalf of a number of minority and women's groups (the authors of the petition were scheduled to testify at Thursday's hearings--a copy of their testimony, which summarizes the petition, is attached). The purpose of the petition is to induce DHHS to make administrative changes in Medicaid and PHS programs which the petitioners claim will reduce low birth weight and infant mortality, especially among the black and minority populations. It included analyses of NCHS mortality and natality data as well as vital statistics data from a telephone survey of 50 selected city health departments. As a result, Dr. Brandt asked me to appear Thursday morning prior to the hearing to go over the petition.

The basic conclusion of the analyses was that black and white infant mortality rates and low birth weight (LBW) ratios are diverging. This part of the report was fairly reasonable, although I believe too much was made of the very small increases in the black-white differential (e.g., the relative risk increased from 1.83 to 1.91 between 1970 and 1979). It should also be noted that the latest 1980 data show a further increase in the relative risk to 1.95. Nevertheless, there is no question that over the past 15 years the black rate remains considerably higher than the white rate, and there is no sign that it is decreasing more rapidly (unless an arithmetic difference is used which in this situation seems inappropriate).

The next part of the report was a cost-effectiveness analysis of the provision of comprehensive prenatal care. The results suggested a net savings of $361 million if such care were provided to all low-income women. These conclusions were quite unrealistic since they assumed (based on what I consider rather flimsy evidence) a reduction in LBW ratio from 15 percent to 5 percent.

The hearing itself was attended by 15 Congressmen, many of whom asked Dr. Brandt quite detailed questions (this took more than one hour). One of the major questions was why the Department's prevention goal for 1990 is 9 infant deaths per 1,000 for the total population but 12 for minorities. Brandt replied that our ultimate goal is to bring all groups to the same level. However, the 1990 goals were designed to realistically reflect what could be done given current medical knowledge.

Page 2 - Manning Feinleib, M.D. Dr.P.H.

Many of the Congressmen indicated that they will submit questions for the record. Thus, we will probably have to provide data to respond to some questions next week. One of the major issues that was raised in the petition and by some of the congressmen (and also by Dr. Brandt) was the timeliness of our data. I think we are subject to a great deal of criticism for lagging so far behind in the provision of vital statistics and in the monitoring of small area data across the country. I propose that we consider the institution of two new systems which will fill these gaps. First, it should be relatively easy to replicate what the authors of the petition did, i.e., to select a sample of communities (States and cities) to serve as a surveillance mechanism for early trends in fetal and infant mortality, low birth-weight, and prenatal care. These localities need not be a random sample, but should be selected to insure that "high risk" communities are adequately covered. Telephone surveys on an annual (or preferably quarterly) basis would be designed to provide some very basic information (e.g., numbers of births, infant deaths, and fetal deaths by race, number of low birth weight and very low birth weight infants by race, and percent beginning early prenatal care by race). Second, we should also consider a Current Natality Sample to provide national provisional statistics from natality data in much the same way as our Current Mortality Sample provides provisional mortality statistics. The availability of natality data will enhance our ability to monitor prenatal care and low birth weight, important indicators of infant health and access to care. The availability of a natality sample would also allow for provisional infant mortality rates to be calculated by race. Currently, we are able to obtain infant death rates by race from the provisional data but the problem of estimating the under 1 population makes these much less stable than the infant mortality rates. For example, between 1979 and 1980 the black-white relative risk increased from 1.91 to 1.95 based on infant mortality rates but decreased from 2.14 to 2.07 based on infant death rates.

Joel

Joel C. Kleinman, Ph.D.

Attachment

DEPARTMENT OF HEALTH & HUMAN SERVICES Public Health Service

Memorandum

Date January 16, 1984

From Director, Division of Analysis
National Center for Health Statistics

Subject Comments on Infant Mortality Trends

To Glenna M. Crooks, Ph.D.
Deputy Assistant Secretary for Health (Planning and Evaluation)

I am attaching the discussion of trends in infant mortality and related statistics requested by Dr. Brandt (per Phyllis Zucker).

You will be pleased to learn that, in order to provide the most recent race-specific data possible, the Division of Vital Statistics has prepared special preliminary estimates of the 1981 infant mortality rates (IMRs) from an interim mortality data file. The 1981 IMR was 11.9 per 1,000 live births, 10.5 for white and 20.0 for black infants. These rates represent declines from 1980 of 4.5 percent for white and 6.8 percent for black infants.

There have been many studies of the black/white differential in pregnancy outcome over the past several decades. Among the reasons cited for poor outcome among blacks are the following:

- Higher proportions of teenage, high parity, and out-of-wedlock births
- Lower socioeconomic status
- Lack of access to high quality prenatal care
- Higher incidence of infection (especially, urinary tract infection)
- Lack of adequate nutrition

Although maternal smoking and alcohol consumption have been associated with reduced birth weight and possibly perinatal mortality, data from the 1980 National Health Interview Survey and the 1980 National Natality Survey show that black women are somewhat less likely than white women to smoke or drink. The age and parity composition of black births explains only a small part of the difference in the incidence of low birth weight. At almost every age parity combination blacks are twice as likely as whites to have a low birth weight infant. Similarly, educational attainment explains only a small portion of the black/white differential. Even births to black mothers with college education had a higher low birth weight incidence than births to white mothers with less than high school education. Furthermore, although 56 percent of black births are to unmarried women compared with 12 percent of white births, the incidence of low birth weight among married black mothers is still about 80 percent higher than among married white mothers. Thus, there is still a great deal we need to learn about the reasons for the black/white disparity in pregnancy outcome.

/S/

Joel C. Kleinman, Ph.D.

Attachment

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1/16/84

Trends in Infant Mortality and Related Statistics

Two reports have recently been issued which posit a deterioration in child health. The first report, "American Children in Poverty," was published by the Children's Defense Fund (CDF). The CDF Report covered both health and welfare issues. We will confine our comments to the CDF discussions involving infant health statistics. The second report, "The Widening Gap," was published by the Food Research and Action Center (FRAC). This report focuses on recent State and urban area trends in infant mortality and low birth weight. It emphasizes a presumed widening of the gap between mortality rates for white and black infants. Detailed comments on specific statements in these reports are given in Attachment A. This document presents our views of the major trends in infant health statistics.

1. National trends in infant mortality

Although infant mortality rates (IMRs) have been declining at a rapid pace since the late 1960's, the IMR among black infants remains almost twice that of white infants. Furthermore, the U.S. IMR ranks 16th among industrialized Nations. The U.S.'s continuing high black IMR and its relatively poor international standing point up a serious public health problem. However, this problem is not of recent origin; it has been with us for many decades.

The FRAC Report contends that the black/white gap in IMRs has increased between 1978 and 1982. The attached table shows IMRs and the black/white ratio for 1960-81. From 1960-69 the ratio fluctuated around 1.9. In 1970 and 1971 there were two relatively large declines in the ratio. From 1971-75 the ratio stayed at its lowest level (near 1.8). Between 1975 and 1976 there was a relatively large increase with the ratio fluctuating around 1.9 (in no apparent pattern) between 1976-81. There is no evidence that there was any departure from this pattern of year-to-year fluctuation in 1982.

The major social, economic, and health system changes during the 1970's produced a complex web of interacting forces upon infant mortality. It is therefore possible to create a number of equally plausible scenarios to account for the decrease and subsequent increase in the black/white IMR ratio. Counter-arguments to any such scenario can also be developed. For example, although the decline in the black/white ratio coincided with increasing activity in Maternal and Infant Care programs and Neighborhood Health Centers the sharp increase in 1976 did not coincide with a sharp cutback in these programs. In fact, the proportion of black women who began prenatal care in the first trimester of pregnancy continued to increase through the late 1970's.

It is most important to remember, however, that for each and every year since 1963 both the black and white IMR declined. The changes in the black/white IMR ratio are due to differential rates of decrease. For example, the largest decrease in the ratio occurred between 1970 and 1971 when the black IMR decreased by 7.1 percent compared to 3.9 percent among whites. The largest increase in the ratio occurred between 1975 and 1976 when the IMR declined by 2.7 percent for blacks and 6.3 percent for whites. The ratio remained unchanged in 1977, however, because both white and black IMRs declined by the same amount--7.5 percent, the largest single decline for either race over the two decades. Furthermore, there were also substantial declines in fetal mortality for blacks and whites during this period, resulting in a very high risk group of live births. Thus, the IMR declines are even more impressive.

The increased availability and effectiveness of neonatal intensive care units (NICUs) have been responsible for a substantial portion of the decline in the IMR. However, NICUs may have also had a subtle effect on the black/white IMR ratio: there are indications that their availability has resulted in changing definitions of live births and fetal deaths. In particular, as advances in neonatal intensive care have led to greater success in saving very small babies, it is possible that some babies who would have been classified as fetal deaths a few years ago are now classified as live births. Since black infants are more likely to be very low birth weight, this changing definition would increase infant mortality rates more for black than white infants. A similar phenomenon could explain the increase in the black/white differential in low birth weight incidence. This and other limitations inherent in the data preclude a definitive conclusion as to whether there has really been a slight change in the black/white mortality differential. Nonetheless, the data are certainly sufficient to reveal that infant mortality and low birth weight in the black population continues to be a major public health problem.

2. State and local area trends in infant mortality

Both the CDF and FRAC Reports contain a number of statements regarding increases in infant mortality at the State and local level. As in many previous reports, the analysis of the State trends concentrate on changes between two points in time, rather than trends over several years. The methodological problems in doing this have been discussed at length elsewhere (see Attachment A and Dr. Brandt's testimony before the Senate Subcommittee on Rural Development, Oversight and Investigation, Committee on Agriculture, Nutrition and Forestry, March 14, 1983). We reanalyzed the CDF data on the 18 States for which 1982 data were available separately for whites and nonwhites and which had more than 10,000 black births per year. The only State with a large black population omitted from this group is California. (We called the California State Vital Statistics Office and were able to obtain their rates for 1978-82. Although there was some change in the way the data for whites were tabulated, the way in which the data for blacks were tabulated does appear to be consistent over these years. These data showed a black infant mortality rate of 16.7 per 1,000 live births in 1982--lower than any of the nonwhite rates for the 18 States. Although this rate represented no change since 1981, the decline between 1980 and 1981 was more than 12 percent, an unusually large decline for a single year. It is not clear why the CDF report did not include California data.)

According to the CDF data, 9 of the 18 States showed an increase in their nonwhite IMR between 1981 and 1982 (the 1982 rate of 12.6 for Missouri is an error; it should be 19.6). Although this number was above the 1969-80 average (based on NCHS data for these 18 States) of 4.3 States per year showing an increase in nonwhite IMRs, it is not unprecedented. Nine of the 18 States showed an increase in 1972 and ten States showed an increase in 1976. In addition, in 1975 and 1978 seven States showed an increase. Furthermore, of the nine States showing a 1982 increase in the nonwhite infant mortality rate, six had shown a 1980-81 decrease of more than 8 percent (the nonwhite infant mortality rate for the U.S. declined by 6.8 percent in 1981). Thus, it is likely that many of these increases are artifacts resulting from an unusually large decline in the preceding year. A more sophisticated approach is needed to make sense of the State trends.

The analysis of State trends in infant mortality rates is extremely difficult due to the large number of comparisons that need to be made. Even if we restrict our attention to the 18 States in the CDF report and the years from 1968 through 1982, there are many possible ways in which a trend can depart from the overall U.S. trend. A statistical analysis of trends in State infant mortality rates for 1968-80 based on NCHS data (using weighted least squares estimation of log-linear regression models), showed the following problems among the 18 States:

a. The white and nonwhite rates for Florida appeared to be stabilizing during the latter part of the 1970s. However, the CDF data suggest that 1981 and 1982 show a resumption of the decline in IMRs.

b. Although the average rate of decline for nonwhite infant mortality in Georgia from 1968-80 was about the same as the U.S. decline, the IMRs were essentially constant between 1977 and 1980. The CDF data suggest that they remain so through 1982.

c. Louisiana showed a significant slow-down in the decline of nonwhite DMRs during the late 1970s but the CDF data suggest a resumption of the previous rate of decline.

d. The nonwhite DMRs in Michigan, Missouri, and South Carolina declined at significantly slower rates than the U.S. rate of decline. Furthermore, the CDF data suggest that the 1980-84 trend in each of these States is essentially flat.

It is difficult to interpret these trends from a national viewpoint. The fact that they are each statistically significant at the 5 percent level does not take into account the large number of comparisons that were actually made. However, from the perspective of a State official in Georgia, Michigan, Missouri, or South Carolina, it would certainly be important to analyze the State data in considerably more detail. The most fruitful possibility would be to look at trends in local area data. This needs to be done very carefully, however, in order to avoid some of the pitfalls when dealing with small numbers. The safest approach would be to combine areas with similar sociodemographic characteristics. For example, the State data should be disaggregated according to inner-city blacks versus those living in suburban areas versus those in rural areas. These kinds of analyses could help pinpoint the problem and determine whether it is real, a chance occurrence, or an artifact of the data.

Another problem with the interpretation of the State trends in DMRs is the lack of consistency with other factors. For example, although the trend among Michigan's nonwhites looks problematic, Ohio's 1980-82 trend appears to have been favorable (a 5.0 percent decrease between 1980 and 1981, followed by an 11.1 percent decrease in 1982). Yet the economic situation in both these States was deteriorating (for the years 1979-81, respectively, the unemployment rate was 7.8 percent, 12.6 percent, and 12.3 percent in Michigan and 5.9 percent, 8.4 percent, and 9.6 percent in Ohio).

3. National trends in the incidence of low birth weight (LBW)

Compared to the decline in infant mortality, LBW has declined very slowly during the 1970s. Although the LBW incidence among blacks increased slightly between 1980 and 1981, larger increases occurred in two earlier years (1972 and 1978). Thus, there seems to be little evidence of any departure from the trend. It is important to note, however, that unlike the situation with infant mortality, the LBW incidence among blacks does seem to be decreasing at a slower rate than among whites (0.9 percent per year for blacks versus 1.7 percent per year for whites). Furthermore, the incidence of term low birth weight (i.e., low birth weight babies with gestational age 37 weeks or more) declined much more rapidly than the incidence of pre-term LBW (those with gestational age less than 37 weeks). However, within each type of LBW the decline among white infants was greater than the decline among black infants. Part of this may be due to the decrease in the fetal death rate and the phenomenon noted above with respect to neonatal intensive care units (i.e., a changing definition of live birth). More detailed analyses of these trends is now underway.

4. Trend in prenatal care

Black women are much less likely than white women to begin prenatal care in the first trimester of pregnancy. In addition, for the first time since 1968 (when the data were first collected on birth certificates) there was a slight decrease in 1981 in the proportion of black live births where the mother received prenatal care in the first trimester. Although the decline was tiny (62.7 percent to 62.4 percent) and there was evidence of a slowdown in the rate of increase in early prenatal care during the late 1970's, the decline represented a significant departure from the trend in the previous decade. For white women, the proportion with early care increased by only 0.1 percent (79.3 percent to 79.4 percent).

Although the national data for black women indicate a significant departure from the trend over the past decade, it is difficult to draw firm conclusions about the reasons for the decline since it occurred uniformly among both high and low risk black women. For example, when the data are divided by age, marital status, and educational attainment, there is no single group (out of the 18 groups) with more than a 1 percentage point decrease in the percent with early prenatal care. One would have expected the decline to be concentrated in the high risk groups who were especially hard hit by the adverse economic conditions between 1980 and 1981. These were certainly the groups that showed the largest increases over the 1970s in the receipt of early prenatal care.

When dealing with these recent trends in prenatal care, it is important to keep the major problem in mind. Although the evidence on the effectiveness of prenatal care in reducing the incidence of LBW and infant mortality is not conclusive, several studies have suggested such an effect. Yet those women at highest risk of adverse pregnancy outcome are still least likely to receive early prenatal care. Furthermore, recent studies suggest that the quality of prenatal care may also differ by race and socioeconomic characteristics. For example, data from the 1980 National Natality Survey show that black women (especially those in the South) and women in rural areas are less likely to receive amniocentesis, ultrasound examinations, and electronic fetal monitoring but more likely to receive X-rays during pregnancy.

5. Meeting the 1990 prevention goals

The CDF Report expresses concern about lack of progress towards the 1990 Prevention Goals for infant mortality, low birth weight and early prenatal care. Although the CDF methodology is faulty (it is incorrect to extrapolate rates based on only two points in time) and the conclusions regarding individual States are often incorrect, there is reason for concern. We extrapolated the national trends in these statistics between 1970 and 1981, and obtained the following projections for 1990:

	Total	White	Black
IMR per 1,000	7.8	6.8	13.5
Percent low birth weight	6.0	4.9	11.5
Percent with early prenatal care	82.4	84.4	74.6

The extrapolation for prenatal care is based on a model which specifies diminishing annual increases, viz., $\log(1-P)=a+bt$ where P = proportion with early prenatal care and t = year. This model provided the best fit to the 1970-81 data for both blacks and whites.

Thus, only the total infant mortality goal would be achieved if current trends continue. While there is no evidence of a slowdown in the decline in infant mortality or low birth weight, neither is there evidence of an acceleration. There have been suggestions that the current economic recovery will lead to such an acceleration. This seems unlikely, however, given the fact that the IMRs and low birth weight incidence have declined steadily at the same rate through the 1970's and early 1980's (during both recessions and recoveries).

ATTACHMENT A--Specific Comments on CDF and FRAC Reports

A. Prenatal Care

1. Inaccuracies in CDF prenatal care data

Comparison of CDF data with NCHS and State vital statistics data reveal a number of discrepancies. Some of the more dramatic statements about prenatal care increases and decreases made in the CDF report were based on the incorrect data.

a. CDF reported that 2[illegible].1 percent of nonwhite D.C. women received late or no prenatal care in 1982. However, data obtained from D.C. indicates that only 8.2 percent of nonwhite D.C. woman received late or no prenatal care. Comparison of the percentage of nonwhite and white women receiving late or no prenatal care for the years 1978-1981 as reported by D.C., NCHS, and CDF revealed that the CDF percentages differed greatly from the D.C. and NCHS percentages. The CDF data indicate sharp increases in the percentage women with late or no prenatal care whereas D.C. and NCHS data indicated slight, but not steady, decreases in the percentages. There is, however, a large number of D.C. birth certificates with prenatal care unknown (about 25 percent in each year).

b. The percent of nonwhite N.Y. women receiving late or no prenatal care in 1978 reported by CDF was much lower than that reported by N.Y. or by NCHS (15.4 percent versus 22.3 percent and 19.6 percent, respectively). Further, CDF's statement that N.Y.'s 1982 percentage is twice as high as the national average fails to take into account the fact that the New York City data are based on a different question which is not comparable to the data from the rest of New York and most States.

2. Methodological problems

a. The CDF report counts the number of States for which the percent of women receiving late or no prenatal care increased in 1982 and the number for which the percentage of women receiving early prenatal care decreased in 1982. However, they do not report the number of States having increases and decreases in any preceding years. Thus, there is no base of comparison for the 1982 data. As with IMRs, a trend over several years needs to be examined. Similarly, comparison of the 1978 and 1982 percents to determine change in late or no prenatal care is inappropriate because the percentages are somewhat unstable and tend to fluctuate from one year to the next. The percents increased steadily in only two States (South Carolina and Florida). To assess the change over this 5-year period, CDF should have fitted a regression line to the percents (preferably to the log percents) and looked at the slope of the fitted line.

b. While citing increases in the percentages of nonwhite women receiving late or no prenatal care in Florida and South Carolina, CDF failed to note the sharp improvement in prenatal care reporting during 1978-1982 for these two States. Changes in the percent of women reporting the month prenatal care began could have a large impact on the results.

d. In general, CDF does not take into account the accuacy of the estimates. The standard errors for estimates from some States are much larger than for other States. It is particularly important to take into account standard errors of estimates for black women because of the small black population in certain States.

B. Infant Mortality Data in CDF and FRAC Reports

The CDF report presented infant mortality data for all races from 38 States, and for nonwhite and white women from 29 States (for some States the rates presented for nonwhites are, in fact, for blacks). The FRAC report presents data for all races and for nonwhite and white women from 35 States. The FRAC report also presents infant mortality rates for 16 cities or urban counties which had increases in infant mortality between 1978 and 1982. Similar problems to those noted for the prenatal care analysis also apply to the infant mortality analysis.

1. Small area estimates

Infant mortality rates for 1982 for certain cities, urban counties, and even census tracts are presented without standard errors or the numbers of infant deaths on which the rates are based. Annual infant mortality rates for small areas are highly unstable, and no conclusions about changes in rates can be drawn from a change between two years. The CDF report presents an infant mortality rate for two Baltimore census tracts, an extremely unstable statistic. The FRAC report cites Atlanta, Milwaukee, and Wake Co., N.C. as "disturbing examples of a widening infant health gap" based on changes in mortality rates between 1978 and 1982. The numbers of infant deaths in these areas in 1978, shown below, indicate that the results for these areas are too unstable to draw conclusions regarding a widening infant health gap.

	Infant deaths in 1978	
	White	Black
Atlanta	31	125
Milwaukee	57	52
Wake Co., N.C.	36	27

In addition, as discussed earlier, the comparison of rates for 1978 and 1982 is an inappropriate method of looking at changes over time. A better approach would be to calculate the slope for infant mortality rates for all years between 1978 and 1982, and compare the slopes for white and black infant mortality rates.

2. Table 2 of the FRAC Report presents "mean DMRs" which appear to be unweighted averages of the State DMRs. This is quite misleading since a State like Nevada with about 1,000 black births receives the same emphasis as Illinois with 40,000 black births.

3. Calculation of change ratios

As discussed above, the calculation of the rate of change in infant mortality based on two years, 1978 and 1982, is inappropriate. In addition, the FRAC report presents an "average rate of improvement or mean change" for all reporting States and all reporting cities. There is no explanation given regarding how these are calculated. If the numbers are unweighted averages of State change ratios, they are extremely unreliable.

C. Childhood Immunization

The CDF report indicates in its preface that "childhood immunizations have plummeted." No data sources or further elaboration are given in the report. However, the preface states that less than half of black preschool children are immunized against DTP and only 39 percent are immunized against polio. The following CDC data indicate that immunization rates have not plummeted as claimed in the CDF report.

Percent of nonwhite children
1-4 years immunized

	DTP	Polio
1976	53.2	39.9
1981	52.0	42.7

While there is certainly no evidence of "plummeting," the low level of immunization is a cause for concern.

Table 1. Infant mortality rates by race and ratio of rates for black infants to rates for white infants: United States, 1960-

[Rates per 1,000 live births in specified group. Beginning 1970 excludes data for nonresidents of the United States]

Year	Rate				Ratio Black/Whit
	All races	White	All other: Total	All other: Black	
1982[1]	11.2	---	---	---	---
1981[2]	11.9	10.5	17.8	20.0	1.90
1980	12.6	11.0	19.1	21.4	1.94
1979	13.1	11.4	19.8	21.8	1.91
1978	13.8	12.0	21.1	23.1	1.92
1977	14.1	12.3	21.7	23.6	1.91
1976	15.2	13.3	23.5	25.5	1.91
1975	16.1	14.2	24.2	26.2	1.84
1974	16.7	14.8	24.9	26.8	1.81
1973	17.7	15.8	26.2	28.1	1.77
1972[3]	18.5	16.4	27.7	29.6	1.80
1971	19.1	17.1	28.5	30.3	1.77
1970	20.0	17.8	30.9	32.6	1.83
1969	20.9	18.4	32.9	34.8	1.89
1968	21.8	19.2	34.5	36.2	1.88
1967	22.4	19.7	35.9	37.5	1.90
1966	23.7	20.6	38.8	40.2	1.95
1965	24.7	21.5	40.3	41.7	1.93
1964	24.8	21.6	41.1	42.3	1.95
1963[4]	25.2	22.2	41.5	42.8	1.92
1962[4]	25.3	22.3	41.4	42.6	1.91
1961	25.3	22.4	40.7	41.8	1.86
1960	26.0	22.9	43.2	44.3	1.93

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[1] Provisional.

[2] Figures are subject to change. These are preliminary figures based on a special interim tabulation of data from the 1981 mortality file.

[3] Based on a 50-percent sample of deaths.

[4] Figures by race exclude data for residents of New Jersey because this State did not require reporting of the item for these years.

Table 2. Fetal death rates[1] by race and ratio of rates for black infants to rates for white infants: United States, 1970-1980

Year	Rate			Ratio
	All races	White	Black	Black/ White
1980..............	9.0	8.0	14.3	1.79
1979..............	9.3	8.3	14.8	1.78
1978..............	9.6	8.4	15.6	1.86
1977..............	9.8	8.7	15.6	1.79
1976..............	10.3	9.3	16.0	1.72
1975..............	10.6	9.4	16.8	1.79
1974..............	11.4	10.1	17.7	1.75
1973..............	12.1	10.6	19.3	1.82
1972..............	12.5	11.0	20.1	1.83
1971..............	13.3	11.6	21.9	1.89
1970..............	14.0	12.3	23.2	1.89

[1] Fetal deaths are deaths of fetuses of 20 weeks or more gestation. The rate is the number of fetal deaths per 1,000 live births plus fetal deaths.

Table 3. Percent of infants of low birth weight by race and ratio of percent for black infants to percent for white infants: United States, 1950-81

Year	All races	White	All other races		Ratio Black/ White
			Total	Black	
1981..............	6.8	5.7	11.4	12.5	2.19
1980..............	6.8	5.7	11.5	12.5	2.19
1979..............	6.9	5.8	11.6	12.6	2.17
1978..............	7.1	5.9	11.9	12.9	2.19
1977..............	7.1	5.9	11.9	12.8	2.17
1976..............	7.3	6.1	12.1	13.0	2.13
1975..............	7.4	6.3	12.2	13.1	2.08
1974..............	7.4	6.3	12.4	13.1	2.08
1973..............	7.6	6.4	12.5	13.3	2.08
1972..............	7.7	6.5	12.9	13.6	2.09
1971..............	7.7	6.6	12.7	13.4	2.03
1970..............	7.9	6.8	13.3	13.9	2.04

Update on Infant Mortality and Related Trends

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National Center for Health Statistics
February 23, 1983

Provisional data for the twelve month period ending November 1982 indicate that the infant mortality rate (IMR) was 11.2 deaths per 1,000 live births, the lowest ever recorded in the United States. This most recent data continues the sustained decrease evident since the mid-1960's (Figure 1). Figure 2 presents monthly moving averages showing that there has been no abatement in the rate of decline since January 1978. The annual declines in infant mortality during the 1970's range from 2.1 percent to 7.2 percent with the 1980-81 decline (provisional data) at 6.4 percent.

Despite the sizeable decline in infant mortality during the past 15 years there remain large differences in rates among subgroups of the population. In 1979 (the latest year for which detailed final data are available) a black newborn was nearly twice as likely to die during infancy as a white newborn. Higher mortality among black infants has been observed ever since reliable statistics have been available. Furthermore, since both black and white IMR's have been declining at the rate of about 5 percent per year, there has been no change in the size of the gap between these two groups (Figure 1).

Comparison of IMR's among States should be based on final data tabulated by State of residence. The last year for which such data are available is 1979. Analysis of the annual changes in IMR's by State shows that although the long term trend is downward for every State, the trend is not a smooth one. In fact, during the 1970's the number of States reporting an increase in their IMR's between any two successive years ranged from 5 to 19.

These increases are due in large part to the fact that mortality is, to some extent, a random process. For example, the overall decline in infant mortality between 1980 and 1981 was 6 percent. Yet, for a State with 40,000 births per year (the median number of births in the U.S.) the chance of that State showing an increase in its observed IMR is about 15 percent even if its true underlying IMR decreased by 6 percent. This is further illustrated by the findings of a recent report by the Food Research and Action Center (FRAC) which indicates that the steady decline in infant mortality is being reversed in certain States and cities. That report presented data from State vital statistics offices showing 7 States to have experienced an increase in infant mortality between 1980 and 1981. The National Center for Health Statistics contacted these 7 States and found that 6 of them resumed their downward trend in infant mortality for 1982. Data from 1982 are not yet available for the 7th State (Rhode Island). Thus, while it is certainly possible that some States are experiencing a real increase in infant mortality, it is difficult to detect such changes based on short-term trends.

Examination of the data over a longer time period shows that infant mortality has declined substantially in each State over the 10 year period ending in 1977-79 (3 year averages are used in order to reduce the influence of random fluctuation). Although a decline in infant mortality was evident for all States, the gap between the highest and lowest States has not changed substantially over the 10 year period. The ratio of the IMR for the highest State to the rate for the lowest State was about 1.4 among whites and 1.6 among blacks in 1967-69 and 1977-79.

Birth Weight

An infant's weight at birth is the primary determinant of survival and health throughout infancy and early childhood years. The lower the birth weight, the greater are the chances of death, serious congenital anomalies or other severe impairments. Although infant mortality has been decreasing rapidly during the past 15 years, the changes in birth weight have been much less striking. The incidence of low birth weight declined by 18 percent among whites compared to only 10 percent among blacks. The reduction in mortality has been attributed in large part to major advances in neonatal intensive care that have resulted in much lower mortality among infants with low birth weight.

As was the case with infant mortality, the incidence of low birth weight (LBW--below 2500 grams) is much greater among black than white infants. In 1980, black births were more than twice as likely to be of low birth weight as compared to white births. The differences in the incidence of very low birth weight (VLBW--infants below 1500 grams who are at much higher risk of adverse health outcomes) is even greater: blacks are 2.7 times as likely as whites to have very low birth weight babies.

In addition to the racial differences noted above there are large differences in the incidence of low birth weight and very low birth weight according to mother's educational level. The proportion of VLBW and LBW babies decreases steadily with increasing educational level of the mother. Furthermore, there is no evidence that the gap has been narrowing over the 1970s.

Factors Associated with Pregnancy Outcome

Many factors contribute to the racial and educational differences in infant mortality and low birth weight. The central role that high quality prenatal care beginning early in pregnancy can play in reducing the racial and socioeconomic disparities in pregnancy outcome has been recognized for several years. Trends since the 1970s have been encouraging. For example, the proportion of mothers who begin prenatal care in the first trimester of pregnancy increased from 72 percent in 1970 to 79 percent in 1980 among whites and 44 percent to 63 percent among blacks. Yet, in 1980 mothers at highest risk of having poor pregnancy outcome are still the least likely to begin prenatal care early.

The potential effects of the current recession on infant mortality and low birth weight are difficult to predict. Investigation of previous changes in unemployment and infant mortality have been inconclusive. One of the major difficulties in such an investigation is the specification of an appropriate lag time. For example, it would seem that the effects of economic dislocation would be most important during the early part of the pregnancy. This might suggest a nine month to one year lag time. On the other hand, the effects of unemployment might not occur until unemployment compensation runs out, which would suggest a two year lag.

Furthermore, perhaps the most serious limitation of any study which would examine what has happened in the recent past and try to determine whether there will be future increases in infant mortality, is that the nature of the current recession differs substantially from previous recessions in two ways. First, the level of unemployment is much higher now than it has been in the recent past. The last large increase in unemployment occurred between 1979 and 1980 when the unemployment rate rose from roughly 6 percent to 7.5 percent. In the current situation, the unemployment rate in some States is well in excess of 10 percent. The magnitude of this increase may, by itself, result in a different relationship between unemployment and infant mortality. The second serious problem is that the 1980 increase in unemployment was not accompanied by major cutbacks in Federal or State funds in maternal and child health services. The current situation is very different with some States reporting substantial reduction in funds for maternal and infant care.

In summary, current levels of unemployment coupled with the cutbacks in State maternal and infant health care programs could lead to a decrease in the proportion of mothers seeking prenatal care early in pregnancy. If this happens it is possible that the decline in infant mortality could level off, especially in those areas which are hardest hit by the recession and program cutbacks. Although available data do not suggest any abatement of the downward trend in infant mortality, it would be premature to interpret this as evidence that there will be no adverse effects of the recession on infant mortality.

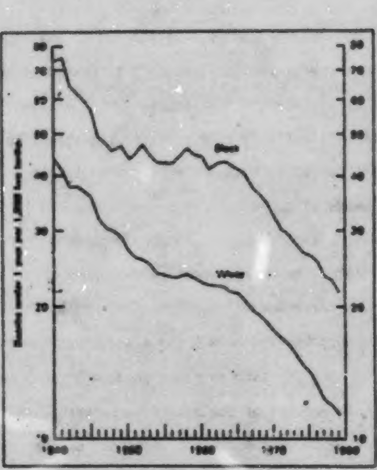

Figure 1. Infant mortality rates by race: United States, 1940-79

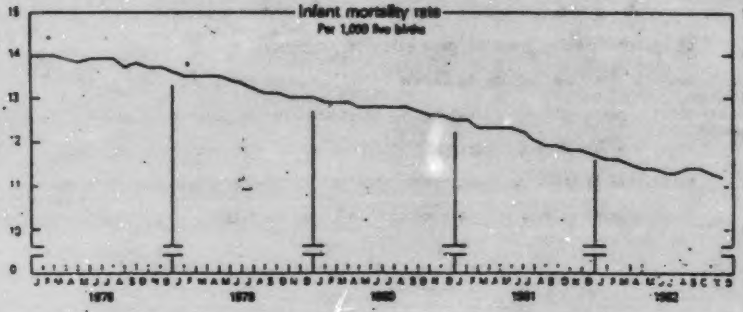

Figure 2. Infant mortality rates for successive 12-month periods ending with each month indicated.

[illegible]

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Memorandum

Date March 21, 1984

From Director, National Center for Health Statistics

Subject NCHS Initiatives Related to Infant Mortality Data

To Assistant Secretary for Health

This is to clarify the National Center for Health Statistics (NCHS) initiatives that were taken in response to Dr. Kleinman's memorandum of July 1 suggesting various needs for infant mortality data:

(1) NCHS has been collaborating with the Centers for Disease Control (CDC) on their National Infant Mortality Surveillance (NIMS) Project. The purpose of NIMS is to capitalize on linked birth and death data systems which have been developed in many States. CDC will be asking each State to fill out standard tables using the linked data in order to obtain infant mortality rates by birth weight, gestation, and maternal characteristics.

(2) In addition, NCHS has given very high priority to the development of a national system of linked birth and death records. This would improve on CDC's NIMS approach by maintaining uniform standards for linkage and for the allocation of inter-State births and deaths. Furthermore, the availability of a national data base will allow for more detailed analysis than would be available from standard tables generated by each State.

(3) We are increasing our commitment to work with the States to provide technical assistance in the utilization of data at the State and local level. In particular, Dr. Kleinman's staff in the Division of Analysis has been in contact with the 18 States with substantial black populations to obtain their most recent data (currently 1982). They are also consulting with statisticians in California, Maryland, Michigan, North Carolina, and New York City to encourage detailed analyses of their infant mortality trends in small areas.

(4) A number of analytic projects are currently underway to examine several aspects of pregnancy outcome: (a) statistical analysis of State trends in infant mortality and prenatal care based on birth and death certificates; (b) multivariate statistical analysis of birth certificate data to assess the contribution of age, parity, education, prenatal care, and pregnancy interval on low birth weight; (c) analysis of data from the 1980 National Natality and Fetal Mortality Surveys to examine the effects of several factors on pregnancy outcome.

(5) In October 1983 I appointed a committee to plan collaborative research activities with foreign scientists on infant and perinatal mortality. The International Collaborative Effort (ICE) on Perinatal and Infant mortality is intended to coordinate research activities of NCHS with parallel activities in selected industrialized countries on this topic.

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The ICE planning group (which will include the core NCHS planning group, invited PHS consultants and selected foreign researchers) will develop proposals for standardized research activities to be carried out in each country that will permit a comparative analysis of findings. These comparative studies will attempt to elucidate the factors responsible for the relatively high infant mortality rates in the United States compared to other industrialized Nations. The results of these activities are expected to provide guidance for PHS programs and activities intended to improve infant health and reduce the disparities that currently exist between racial, ethnic and socioeconomic groups in the United States. The ICE planning group has consulted informally with researchers in other PHS agencies to ensure a coordinated effort on high priority issues.

If you would like any further information about any of these projects I would be glad to provide more details.

M Feinleib
Manning Feinleib, M.D., Dr.P.H.

Mr. **Leland**. The chairman would now like to recognize the next panel, Angela Glover Blackwell, Public Advocates, Inc., San Francisco; Mr. Alan Sanders, Food Research and Action Center, Washington, DC.; Ms. Sara Rosenbaum, Children's Defense Fund, Washington, DC.; and Dr. Vicki Alexander, clinical instructor and chief, Obstetrics and Gynecology, Satellite Clinic, Harlem Hospital, New York.

We will ask also that Dr. Taylor, if you will, join this panel at the point of questions and answers, if in fact any of my colleagues would wish to ask questions of you.

Let me follow the tradition of the Chair, Mr. Dingell, and ask you to stand and be sworn in.

[Witnesses sworn.]

Mr. **Leland**. You may proceed in whatever order you wish.

TESTIMONY OF ANGELA GLOVER BLACKWELL, COUNSEL, PUBLIC ADVOCATES, INC.; SARA ROSENBAUM, DIRECTOR, CHILD HEALTH, CHILDREN'S DEFENSE FUND; ALAN SANDERS, NUTRITIONIST, FOOD RESEARCH AND ACTION CENTER; AND VICKI ALEXANDER, CHIEF, OBSTETRICS AND GYNECOLOGY, SATELLITE CLINIC, HARLEM HOSPITAL

Ms. **Blackwell**. I will go first.

I am Angela Glover Blackwell, attorney with Public Advocates, the law firm in San Francisco that filed the administrative petition in June of 1983 which presented data on infant mortality and proposed remedies for the widening gap between black and white infant mortality rates.

The client groups that we represent—black, Hispanic, civil rights, health and women's organizations—are very pleased to see this very important issue receive the national focus that it deserves.

The main thrust of the petition and what those organizations hope for is that the current Reagan administration will give this vital issue of the death of small babies, black babies in this country, the same concern that has been demonstrated by the Baby Doe rule and by the Squeal rule.

It has been pointed out that between 1978 and 1982, if the black infant mortality rate had been the same as the white, 19,000 black babies would still be alive. We assume that many, if not most of those, were wanted babies, and certainly they deserve the concern and the commitment that has been shown in other areas.

I want to clarify two points because I have heard a lot going back and forth about the issue of prenatal care. The thrust of the administrative petition filed by Public Advocates was that prenatal care can solve this problem, that it can be made available through the medicaid program, that there are many women who are outside of the medicaid program who are poor and needy who need to be brought into that program. There is no question that if that happens, the low birth weight rate and infant mortality will be reduced.

Mr. Brandt alluded several times to the fact that even when you look at college educated, middle-income black women, their low birth weight rate remains twice that of white women.

In his testimony, he actually cited that 5.6 percent of the babies born to this group of well educated black women still produce low birth weight infants. That 5.6 percent is less than half of the national rate for black women. During the past 10 years, that rate has fluctuated between 12.5 and 13.3.

I am sure most low-income black women would say, yes, we will certainly take that 5.6, while there may be need for studies that examine low birth weight to find ways to reduce that 5.6 to the 2-point-something that was cited for white women, we already know that prenatal care could bring down the current 12.5 for black women to 5.6, we need to get on with that business of making that prenated care available.

In the Public Advocate's petition, we asked basically for four things. We asked for clarification at the national level and leadership to bring those poor, low-income women into the medicaid system who are currently excluded because of various options that have not been exercised by the states but could be exercised.

We have asked that the Federal Government take a leadership role and define comprehensive prenatal care so that those states participating in the medicaid program will provide a high level of uniform care to all women across the country.

We have asked that States participating in the Medicaid Program be required to target those areas in their communities that suffer from high infant mortality rates.

The fluctuations across the country between black and white are astonishing, but many times when you look within States and cities you find astonishing fluctuations.

Some cities have areas that have 30 deaths for black infants per 1,000, and in some areas as high as 45. There should be concentrated efforts to identify those areas and target efforts to reduce those rates.

We also asked for changes in the critical area of education and outreach. Dr. Brandt cited the healthy mothers-healthy babies campaign as being the model in terms of outreach and education.

This is not a thorough study that I am going to cite. It is my experience as an advocate moving across the country talking with groups like the Black Women's Health Network and other groups that are involved in advocacy or providing health care, and trying to get more women into the health care system. I have found that very few of those advocacy groups, very few of the health care professionals, have ever heard of the healthy babies-healthy mothers campaign.

As a matter of fact, as a result of my inquiries, it probably is more well known than it has been for the past year. Groups at least now know the name. The posters produced are placed in clinics and other places where women already within the system will see them.

I haven't seen any billboards, any television commercials like the "be all that you can be" army commercial that I see on the television, bringing women into the health care system. It is a voluntary organization, you have volunteers who are doing what they can, but we need this to be a high priority of the Federal Government. We need leadership in this area, and a voluntary organization in an area this vital is just not acceptable.

Several of the other activities pointed to are also unacceptable. We have heard that in response to the work of Public Advocates, and the Children's Defense Fund, and the Food Research Action Center, that there is now going to be a task force focused on these problems.

The task forces that we have seen in the past that have focused on these problems have done more to hurt rather than aid the search for solutions. I point only to the Task Force on Hunger that found no hunger. I wonder if this task force will find no infant mortality problem.

We have heard talk of additional research projects. There may be areas where research is needed, but we would not like to see research of the sort cited today where statistics are played with, where information is reported in a manner that emphasizes the negative and masks the positive, as with the educated black women low birth weight statistics cited by Dr. Brandt. We perhaps need research into low birth weight but not as a prerequisite to making prenatal care available to all women who need it.

In Brandt's testimony, he pointed out those factors that seem to be associated with low birth weight—teenage pregnancies, lack of nutritional information, and several other things. Every one of the things that he cited is a function of prenatal care. Teenagers often don't receive prenatal care because they are not eligible for it, because they don't know that they should receive it. Women who have babies out of wedlock are often very poor. Lack of information, lack of access to prenatal care, accounts for their low birth weight and high infant mortality rates.

In addition, when we see that lack of proper nutrition is associated with infant mortality and that drug and alcohol abuse are associated with infant mortality, we also know that these are associated with lack of prenatal care.

Good prenatal care provides nutritional information and provides that information that encourages women to change their habits, the smoking and alcohol consumption habits, during pregnancy.

The responses that we have had from the Reagan administration do not indicate a commitment to using available resources to solve the problem. We brought the administrative petition in June on behalf of blacks, Hispanics, and other groups because there needs to be a national commitment to solving a problem the solution to which is clearly within our grasp, and we have not yet seen anything on the part of the Reagan administration to indicate that they are looking to take that important step.

Thank you.

Mr. LELAND. Ms. Rosenbaum.

TESTIMONY OF SARA ROSENBAUM

Ms. ROSENBAUM. Thank you, Mr. Chairman. I have submitted a longer statement for the record and I would like to make several points now.

Mr. LELAND. Your full statement will be entered into the record.

Ms. ROSENBAUM. Thank you. First of all I would like to echo Miss Blackwell on a central issue that has come up at this hearing, namely, the difference between associative factors and causative factors in the formation of Federal policy. Researchers have a great need to know exactly why trends are as they are, and I am sure that given enough time and money we will be able to pinpoint what prevents low birthweight babies much better than we can do so today. But there is no end to the number of associative factors that have already been identified as putting a mother and infant at risk for an unhealthy birth outcome, and I believe strongly that the primary function of Federal policy in this area is to eliminate or mitigate as many of those associative factors as possible, because we know that the sum total of eliminating those factors will, for whatever reason, although we do not know exactly what the causation is, produce healthier babies and bring down long-term Federal costs.

As to the testimony presented today by the Department, I think that the major point in their testimony with which we take issue is their assumption underlying the testimony, especially of Dr. Brandt, that somehow there are great reserves of untapped resources in the community. If women were simply educated better, if they were more responsible about using the community resources, the Department suggests there are sufficient facilities and providers. In fact we know this is not the case. This is a health insurance society. This is a society in which you have to have health insurance or you have to have an awful lot of money in your pocket to get health care.

Right now one out of every two black children in this country is living in poverty, and in female-headed households the poverty rate for children is over 70 percent. Unless they have access to publicly financed services, these families will not have the means to purchase health care. In "American Children in Poverty," submitted earlier for the record, we cite case after case, all taken from actual complaints arising under the Hill-Burton Act, of mothers arriving at hospitals in labor, of babies arriving at hospitals deathly ill, so ill that in fact they died within several hours of admission, who had never seen a doctor or obstretician. Pregnant women were required to put $400, $600, $800, $1,000 down in advance because they had no insurance coverage, denied care, then refused access to hospitals. One pregnant woman was chased through a parking lot by a physician and told that next time she showed up and tried to deliver her baby at the hospital she would be arrested. At the time, she was experiencing what her family thought was premature labor. Another baby died in the hospital because the pediatrician on call said he did not serve poor babies referred from free clinics.

This is the reality. We have had tremendous problems with access to health care in this country even prior to 1980. Dr. Brandt is right to point out that the 1980 data already were showing discouraging trends in terms of accessibility of prenatal care. In light of that data, the last thing a reasonable administration would do would be to cut programs further. Yet what we have seen since 1980 is the following. Although 8 out of 10 children in this country who are poor would be uninsured without medicaid, we have had deep cuts in the medicaid program. These reductions have thrown 700,000 children off the program, have kept several hundred thousand more from ever qualifying for assistance, and we have the lowest correlation between poverty and medicaid for poor children in this country any time since the program was fully implemented 10 years ago.

In other words, during the last major recession, the recession of the mid-seventies, we had a very high rate of correlation between the poverty rate and the medicaid recipient rate among children. Now we find that as the number of chilren in poverty has grown by unprecedented numbers and at an unprecedented rate, the medicaid eligibility line is plummeting downward, and most of that downward plummet can be attributed directly to Federal cuts in the AFDC and medicaid programs.

As for the issue of the availability of resources and the need or lack thereof for the maternal and child health legislation pending now in Congress, currently 32 States do not provide medicaid coverage for women in two-parent working poor families. Almost that same number do not provide medicaid coverage to women married to unemployed workers, and at least 6 States still do not cover women who are pregnant for the first time. There is no question but that whatever resources there are that are out there are too scarce to marshal. We need the legislation that is pending now.

Finally we took a look at title V and maternity and infant health projects around the country last year. These projects have a 20-plus-year track record of remarkable health outcomes when it comes to births to poor women. We found in our 10 State survey that 90 percent have either cut their programs, or had their level of funding frozen. We found that in only two projects was hospital care still available. We found MIC's turning away patients, contrary to the assertion that in fact there are plenty of resources if one would only look. One MIC project turned away 103 women in a single month. The MIC did a followup of the women who had been turned away and found that 7 out of 10 ended up with no prenatal care at all. We note that in that county for the first time in 5 years there were two maternal deaths, which is quite a rarity at this point in the United States.

In the entire State of Florida, only 38 percent of 65,000 pregnant women who were poor got comprehensive prenatal care last year, and MIC personnel in one of the Florida hospitals reported that 300 of their patients, a tremendous number, delivered with no prenatal care. These are the statistics. These are the stories from around the country.

We could go on. Most recently an obstetrician from Cook County notified me to tell me that, because medicaid reimbursement rates for obstetricians amd hospitals are so low, they are having to drive their pregnant women in labor 90 minutes to Cook County Hospital to deliver their children, which obviously is an extremely high risk thing to do. There is absolutely no evidence for Dr. Brandt's assertion in his testimony that health care resources are adequate, and we would appreciate this committee's exploration of the basis for the Department's assertion that there are adequate resources.

Mr. LELAND. Thank you.

[Testimony resumes on p. 252.]

[The prepared statement and attachments of Ms. Rosenbaum follow:]

STATEMENT OF SARA ROSENBAUM, DIRECTOR, CHILD HEALTH, CHILDREN'S DEFENSE FUND

Mr. Chairman and Members of this Subcommittee --

We are pleased to testify at these hearings, although the subject being discussed here today is not a pleasant one. Your Committee is investigating one of the most serious issues currently facing the American health community, namely the high incidence of death and low birthweight among the nation's Black infants. Indeed, this is an issue of tremendous importance to the American community at large. The grim statistics for Black infants will ultimately haunt the country for generations to come. The needless death of thousands of infants will cost the nation dearly in lost productivity. Moreover, thousands of high risk infants will survive, but only at great human and financial cost. A lifetime of institutional care for an infant handicapped by preventable causes can easily approach one million dollars.

There are 3 major points we would like to emphasize today:

1. *Years of research efforts have identified many of the major risk factors associated with infant death, and there are known and effective interventions for treating many types of risks*. For decades experts have examined the risk factors associated with infant death. That examination has yielded an immense body of knowledge on this subject -- *more than enough to permit policymakers to identify those policy options that should be pursued and those that should be rejected*. While we can and must continue to refine our knowledge as to the causes of infant death in order to fashion ever-more-effective remedies, we certainly have sufficient information on which to act.

In its seminal report, *Better Health for Our Children*, the Select Panel for the Promotion of Child Health states that "three-quarters of the risks associated with low birthweight [the leading cause of infant death during the neonatal period] can be evaluated in the first prenatal visit, and interventions can be taken to reduce such risks."

Those risks range from socioeconomic indicators, such as poverty, to short pregnancy intervals, nutritional deprivation, smoking and substance abuse, poor health, infections, stress, fatigue and a history of prior preterm births.

A comprehensive prenatal care program consisting of complete medical attention, counselling, nutritional supplementation and other health-related support services, has been shown to have a positive impact on birth outcomes. Indeed, the Select Panel concluded that:

> The effectiveness of prenatal care in reducing low birthweight -- the most important predictor of illness or death in early infancy and of the need for neonatal intensive care -- has been so well demonstrated in various well-controlled studies that even the most skeptical reviewers of health services literature would agree that this form of care is one of our most valuable in promoting child health.

This conclusion was echoed by the Department of Health and Human Services in Health, United States, (1981):

> given the current medical knowledge, high-quality prenatal care beginning early in pregnancy holds the greatest promise of reducing the racial and socioeconomic disparities in low birthweight.

Just as it has identified numerous effective interventions during pregnancy, the federal goverment has developed an extensive body of research on the effectiveness of intensive care servces for high-risk newborns in reducing loss of life and mitigating potential handicapping conditions. So important are these services for high risk newborns that researchers both within the Department of Health and Human Services and in medical institutions throughout the country have credited neonatal intensive care for much of the reduction in infant mortality that has occurred over the past decade and a half. 1/ Moreover, neonatal intensive care has been found to be a cost-effective intervention for a great majority of the high risk population. 2/

2. Despite what we know about risks during pregancy and at the time of birth, as well as what is effective in reducing those risks, thousands of women and infants, because of poverty and deprivation, still do not have an assured means of access to these basic-health services. Because of their increased poverty rates, minority mothers and infants are more likely to be at risk of inadequate access to health care. Data recently issued by HHS regarding prenatal care indicate that the nation is now facing a slowdown or reversal of progress toward early prenatal care for all pregnant women, especially for non-white women. 3/ In a study of prenatal care trends. conducted by CDF during 1983, we found identical trends. 4/ Three quarters of responding states in our survey reported a decline in the percentage of non-white women receiving early prenatal care and an increase in the percentage of non-white women receiving late or no care.

There are several reasons why fewer pregnant women may be receiving early prenatal care and why a greater percentage may be receiving little or no care. Chief among those reasons is poverty. Indeed, the significant growth in poverty over the last several years directly parallels these disturbing prenatal care data. Thus, must be viewed as contributing substantially to this trend.

Research has yielded extensive information on the relationship between both poverty and race and access to health services. Federal researchers have reported, for example, that "high income women are 50% more likely to receive prenatal care in the first trimester than low income women. Further, the percentage of low-income women receiving preantal care did not increase between 1970 and 1976 as it did for high-income women". 5/ Similarly, other federal researchers have found "....a deficit by the poor in use of preventive procedures. Several studies have shown that, compared to those with higher incomes, the poor are less likely to receive breast exams, Pap smears, prenatal care, or immunization against child health diseases". 6/

Most recently, working with data collected by the federal government, the President's Commission for the Study of Ethical Problems in Medicine found "breathtaking" differences in utilization of health services between insured and uninsured persons. 7/ Insured persons were 90% more likely to receive hospital care and 54% more ambulatory care from physicians than were the uninsured. This disparity existed even among those in poor health status. Moreover, the Commission found that in certain parts of the country, especially in the South (where infant mortality rates are the highest), insured status did not erase disparities in the recipt of ambulatory heath care between Black and White individuals. Insured whites in the South received almost 30% more health services than insured Blacks. 8/

3. In light of what is known about the effectiveness of prenatal and infant care, the heightened health risks confronting America's disadvantaged, and their reduced level of access to approprate services, we know what constitutes sensible federal maternal and child health policy. Improving the health status of Black infants (and that of poor infants, who, regardles of race, suffer higher death rates 9/) is a task that is within our reach today. While researchers strive for an exact description of causation, the associative factors surrounding deathrate disparities are

so well accepted that it is eminently reasonable for policymakers to act on current knowledge.

For example, we know that a substantial percentage of poor families are uninsured or underinsured, and that medical care for expectant mothers and infants is important. Policymakers can therefore, as this Committee has done, fashion legislation to extend health insurance to poor working and unemployed families. We can also, as this Committee has done, enact higher funding levels for programs designed to care for uninsured women and children, such as the Title V Maternal and Child Health Block Grant or Community Health Centers.

We also know that since poverty itself is a major factor associated with deathrates among Black and poor infants, we can, as Congressman Waxman and Rangel have done, introduce legislation designed to ameliorate some of the poverty in which thousands of families exist. We can expand nutritional programs of proven effectiveness, such as the Supplemental Feeding Program for Women Infants and Children (WIC).

All of these interventions contribute to the creation of a health and support system that is more responsive to the needs of poor women and children. Moreover, these interventions are modest in relation to the social cost of poverty, disability and death. For example, the cost of Medicaid coverage for prenatal and delivery care has been estimated to be $1500. On the other hand, one day of hospital care for a high risk infant is $1000.

Finally, the current level of knowledge certainly permits policymakers to recognize bad policy. Federal census data reveal that without Medicaid, 8 out of 10 poor children would be completely uninsured. 10/ It would therefore be unwise to enact budget reductions that remove nearly 700,000 children from Medicaid and prevent hundreds of thousands more from ever obtaining benefits. 11/ Yet this is the policy that the Reagan administration has pursued. Thus, while poverty among children grew by 31% from 1979-1982. Medicaid eligibility grew by only 7% by the Department's own admission. Furthermore, FY 1982 data show that in Fiscal Year 1982, the year that the OBRA cuts became effective, the recipient rate for children remained virtually flat. 12/ The Medicaid recipient rate among poor children is now lower than at any time since the program was first fully implemented. 13/ In the face of this evidence the Administration presses for yet another $3.3 billion in Medicaid reductions over three years. For Fiscal Year 1985, half of the Administration's Medicaid savings would be generated by removing more women and children frm the program and by forcing poor families to pay part of the cost of their care.

Similarly, we know that poverty places a pregnant women at higher risk for herself and her baby. Yet, as a result of this Administration's policies, Aid to Families with Dependent Children may no longer be provided to indigent women pregnant with their first child until their final trimester of pregnancy, and their unborn children cannot qualify for assistance at all.

In 1983 the President's Commission for the Study of Ethical Problems in Medicine reported to the President on its findings regarding the ethical implications of differences in the availability of health services. It concluded that there exists an ethical obligation to ensure that all Americans have access to an adequate level of health care and that "the ultimate responsibility for ensuring that this obligation is met rests with the Federal Government." Yet the Administration is moving federal policy away from, rather than toward, the fulfillment of this obligation. It is critical for the future of the nation's children, that this erosion in health policy for children be halted and that this Committee's modest legislative improvements now pending be enacted.

Footnotes

[1] Kleinman, Joel, "Trends and Variations in Birth Weight," *Health United States* (1981), p. 7.

[2] Office of Technology Assessment, The Implications of Cost Effectiveness Analysis of Medical Technology: Background Paper No. 2 (U.S. Congress, 1981).

[3] NCHS, Advance Report of Final Natality Statistics, 1981. Dec. 29. 1983.

[4] *American Children in Poverty* (CDF, 1984).

[5] Davis, Gold and Makuc, "Access to Health Care for the Poor: Does the Gap Remain?" *Ann. Rev. of Public Health* (1981) at p. 171.

[6] Kleinman, Gold and Makuc, "Use of Ambulatory Medical Care by the Poor: Another Look at Equity," XIX *Medical Care* 1011, 1020.

[7] Davis K. And Rowland, D., "Uninsured and Underserved," *Securing Access to Health Care*, Vol. III (President's Commission for the Study of Ethical Problems in Medicine, Wash, DC, 1983).

[8] *Ibid*.

[9] Budetti, Peter, *Testimony Before the Joint Economic Committee*, Nov. 2, 1983.

[10] *Ibid*.

[11] *American Children in Poverty*, (CDF, 1984).

[12] Fiscal Year 1982 Medicaid Data (HFCA).

[13] *American Children in Poverty*, (CDF, 1984).

CHILDREN'S DEFENSE FUND 122 C St NW Washington, DC (202) 628-8787

Summary of the Children's Defense Fund's
1984 Survey of State Vital Statistics
on Infant Births and Deaths

Sara Rosenbaum
Janet Simons
Deborah Roth

Introduction

In 1983, the health and research divisions of the Children's Defense Fund collected and analyzed state vital statistics from 1978-1982 on infant births and deaths. We conducted our review by collecting from the vital statistics offices of all fifty states and the District of Columbia final state-level data on infant death, low birthweight rates and time at which prenatal care was begun. When available, these data were collected by race.

States provided these data from their annual vital statistics reports. In some cases, states performed special computer runs to provide us with prenatal care information by race. Since individual state data collection activities differ in both timing and content, some of the requested data (especially by race) were unavailable.

In all, 48 states and the District of Columbia were able to provide us with final infant death rates through 1981. Thirty-seven states and the District of Columbia were able to furnish us with final infant death rates through 1982. Thirty-three states (representing over 73% of all U.S. live births in 1982) provided us with final prenatal care data through 1982 disaggregated by race. Another state provided us with prenatal care data disaggregated by race through 1981. Taken together, these 21 states accounted for over 67 percent of all nonwhite infant births in the United States in 1980.

All of the infant death data included in this survey are final statistics. Their chief limitation is that they mask major problems occurring at a substate level (for instance, in cities or counties).

The seven summary tables included in this compilation originally appeared in CDF's January, 1984 report entitled American Children in Poverty. The summary tables included in this compilation differ slightly from those in American Children, however, since subsequent to publication of that report, several states provided us with additional data. Additionally, this compilation includes the individual charts on births, deaths, low birthweight, and prenatal care that we prepared for each reporting state.

We examined the data to determine whether there had occurred any erosion of the progress in infant heatlh that has been made over the past two decades. Additionally, we analysed the data to determine if there had been a slowdown in states' rate of progress in reducing infant mortality. In order to determine the adequacy of states' rate of progress in lowering the infant mortality and low birthweight rates and improving access by pregnant women to early prenatal care, we therefore compared rates of progress in the areas of infant mortality, low birthweight and time at which prenatal care was begun against 1990 U.S. goals for infant mortality. The results of this comparison are set forth in Tables V-VII.

Findings

A. Infant Mortality

Table I sets forth state infant mortality statistics by race for 1978-1982.

Between 1981 and 1982, 21 of 40 reporting states (AL, DE, IA, IL, KY, MD, MS, MO, NE, NH, NJ, NY, NC, OK, OR, SC, SD, UT, VT, VA, WA) reported an increase in infant mortality rates for one or both races of infants. These data are too preliminary to detect an infant mortality trend. However, by 1982, the black/white infant death rate "gap" had widened over previous years in 19 of 30 states that reported infant mortality statistics by race (AL, DC, FL, GA, HI, IL, KY, LA, MD, MI, MO, NJ, NC, OR, PA, SC, SD, VA, WA). This is a matter of concern, since it indicates an unacceptably slow rate of progress in reducing nonwhite infant mortality rates.

B. Low Birthweight Rate

Birthweight is a crucial health indicator for infants. Low birthweight infants (weighing 2500 grams (5.5 lbs) or less at birth) are twenty times more likely to die within the first year. 1/ Two-thirds of all infant deaths occur among low birthweight infants. 2/ Low birthweight is also associated with increased risk for mental retardation, birth defects, growth and developmental problems, blindness, autism, cerebral palsy, and epilepsy. 3/ Nonwhite infants, who are twice as likely to die in the first year of life as their white counterparts, are also twice as likely to be low birthweight.

Table II illustrates the nation's continuing low birthweight problem. Among 30 states reporting final low birthweight data by race through 1982, only 8 (AL, CO, HI, KY, NY, ND, UT and WA) show low birthweight ratios of less than 2.0. Black babies continue to suffer from low birthweight at twice the rate of white infants.

C. Prenatal Care

Prenatal care is closely associated with healthy birth outcomes. Babies born to women who receive little or no prenatal care 4/ are three times more likely to be low birthweight and three times as likely to die in the first year of life. 5/ Nonwhite women are twice as likely as white women to receive little or no prenatal care. 6/

Tables III and IV present the most compelling data obtained by our survey. Between 1981 and 1982, in 22 of 35 states reporting prenatal care data, the percentage of women receiving little or no care increased. (See Table IV and IV A). In 18 of 23 states reporting prenatal care data by race, the percentage of nonwhite women receiving little or no prenatal care increased between 1981 and 1982. (See Tables IV and IV A).)

As the percentage of women receiving little or no care increased, simultaneously, in 20 of 35 reporting states the percentage of women beginning prenatal care in the first trimester declined. (See Tables III and IV A.) Moreover, in 19 of 23 states reporting prenatal care data by race, the percentage of nonwhite women receiving prenatal care in the first trimester also declined. (See Tables III and IV A.)

The prenatal care statistics for nonwhite women, substantially worsened in several states. In 10 states (AL, DC, FL, MO, NY, OK, SC, TN, TX, and UT) the rate of late or no prenatal care for nonwhite women was the worst in five years. Several states showed dramatic increases in the percentage of nonwhite women receiving late or no prenatal care. Between 1978 and 1982, Florida's rate jumped by 63%; New York's, by 34%; South Carolina's by 29%; Texas' by 11% and Oklahoma's by 14%. New York State leads the nation in the percentage of nonwhite women (21.3%) receiving little or no prenatal care.

There are undoubtedly numerous reasons for this widespread shift away from early prenatal care and toward late or no care. Unemployment and growing impoverishment among families with children in recent years, federal and state budget reductions leading to fewer public services, 7/, and the sizeable percentage of adolescent births all contribute to this trend. Because of the extraordinarily serious impact of prenatal care on birth outcome, it is critical that public expenditures for maternity services expand to meet the growing need.

Yet, in spite of these statistics, federal expenditures have failed to respond to need. Federal changes in eligibility requirements under the AFDC and Medicaid programs that were enacted in 1981 have resulted in lost or reduced AFDC benefits for 725,000 families, including over 1.4 million children.8/ Some 700,000 children lost Medicaid completely. 9/ Hundreds of thousands more poor families with children who would have qualified for AFDC and Medicaid under pre-1981 criteria no longer do so. Because of these restrictions, while the percentage of children living in poverty has risen steadily in the past several years to the highest level since 1965, the percentage of persons in poverty qualifying for Medicaid declined from over 95% at the height of the 1974-76 recession to less than 75% in 1982. 10/

D. The Surgeon General's Goals for Reducing Infant Mortality in the United States by 1990

In 1979 the Surgeon General of the United States established national goals by which to measure the nation's rate of progress in reducing the rate of infant mortality and low birthweight and improving access by pregnant women to prenatal care in the first trimester. The goals, developed with the assistance of the National Academy of Sciences, permit a comparison between the current infant natality and mortality trends against federal goals that build upon a rate of progress established over the past two decades.

The Surgeon General's goals include the following:

- By 1990, low birthweight babies should constitute no more than 5 percent of all live births, with no racial or ethnic subgroup exceeding 9 percent of all live births.

- By 1990, the U.S. infant mortality rate should not exceed 9 deaths per 100 live births, with no racial or ethnic subgroup exceeding 12 deaths per 1000 live births.

- By 1990, 90 percent of pregnant women should begin medical care in the first trimester, because of the high correlation between appropriate maternity care and birth outcome.

Tables V through VII examine states' rate of progress in the areas of mortality, birthweight, and prenatal care. Given the rates of progress between 1980 and 1982, we determined that:

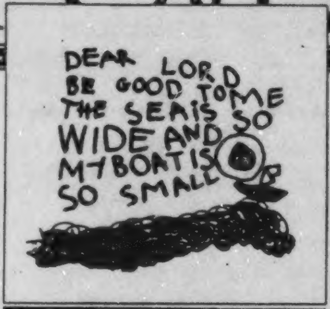
- Thirteen of 40 reporting states will not meet the Surgeon General's 1990 goals for reducing infant mortality among all infants. Seventeen of 30 states reporting infant mortality data by race will not meet the Surgeon General's 1990 goals for nonwhite infants.

- Thirty-two of 39 reporting states will not meet the Surgeon General's 1990 goals for reducing the low birthweight rate among infants. Twenty-two of 30 states reporting low birthweight data by race will not meet the 1990 goals for nonwhite infants.

- Thirty of 33 reporting states will not meet the Surgeon General's 1990 goals for providing early prenatal care to expectant mothers. Twenty-two of 23 states reporting prenatal care data by race will not meet the Surgeon General's 1990 goals for non-white women.

Finally, since so few states are projected to meet the Surgeon General's 1990 goals for either prenatal care or low birthweight, it appears that those states that do meet the 1990 goals for infant mortality will do so mainly through the provision of heroic medical care of low birthweight infants rather than by reducing the number of low birthweight infants through the provision of better prenatal and preventive services.

AMERICAN CHILDREN IN POVERTY


DEAR LORD
BE GOOD TO ME
THE SEA IS SO
WIDE AND
MY BOAT IS
SO SMALL

CHILDREN'S DEFENSE FUND

"It is a reproach to
religion and government to suffer so much
poverty and excess."

William Penn
-1693-

Overview and Major Findings

Although all Americans have been weathering a recession, America's children have suffered most. Across the board federal cuts in survival programs for children in a time of family unemployment and need have worsened the plight of needy children. This is apparent in the creeping upwards of infant mortality in a number of states; in the decreasing access of mothers and children to prenatal, delivery, and preventive health care; in the growing reports of child abuse and neglect; in unmet child care needs; and in shrinking supplemental education services.

I. DECREASE IN PRENATAL CARE

Over the past three years, there has been a disturbing nationwide decrease in the percentage of women receiving prenatal care during the first three months of pregnancy and rise in the percentage of women receiving late or no prenatal care.

Of 33 states reporting prenatal care data for all women:

- Twenty-six states showed increased percentages of women receiving late or no prenatal care in 1982 over preceding years (Ala., Calif., Del., D.C., Fla., Hawaii, Kans., Md., Mo., Miss., Neb., N.H., Nev., Mich., N.Y., N. Dak., Ohio, Okla., Oreg., Pa., S.C., S.Dak., Tenn., Tex., Utah, and Va.).

- Twenty showed decreased percentages of women receiving early prenatal care (Del., D.C., Fla., Hawaii, La., Md., Miss., Nev., N.J., N.Dak., Mont., Neb., Okla., Pa., S.C., S.Dak., Tenn., Tex., Vt., and Va.).

Of 20 states reporting prenatal care data by race:

- Sixteen showed a decline in 1982 over preceding years in the percentage of nonwhite women receiving prenatal care during the first trimester (Ala., Calif., Del., D.C., Fla., Hawaii, La., Md., Miss., Mo., N.J., N.Y., Okla., S.C., Tenn., and Tex.).

THE SMITHS

When she was 8 months pregnant, Marsha Smith of Abingdon, Virginia, was rushed to Johnston Memorial Hospital. She had not seen an obstetrician. There are only two obstetricians in the county and both demanded $650 up front before they would see her or deliver her baby. She and her husband could not afford medical care.

The first time she arrived at Johnston Memorial, she was told she could not be admitted without a personal physician. After a legal services attorney intervened, the hospital admitted and treated her for an acute kidney infection. She was released the following day.

The next day, Mrs. Smith returned to the hospital again in acute pain, sure that she was in premature labor. The Chief of Emergency Services refused her admission saying "she knew she was not supposed to return to that hospital." The physician then chased Mrs. Smith and her husband out to the parking lot, threatening to call the police if they did not leave. He told her that he would not admit her, even if she was in labor.

Mrs. Smith drove twenty miles across the state line to Bristol Memorial Hospital in Bristol, Tennessee. She was hospitalized for five days with a major kidney infection. Remarkably, she delivered a healthy baby a month later at Bristol Memorial Hospital, which bent the rule against admitting out-of-state residents.

All names in this report have been changed.

- Six showed an increase in 1982 over preceding years in the percentage of nonwhite women receiving late or no prenatal care (Ala., Calif., Del., D.C., Fla., Hawaii, Md., Miss., Mo., N.Y., Ohio, Okla., S.C., Tenn., Tex., and Utah).
- In 10 states the rate of late or no prenatal care among nonwhite women was the worst in five years (Ala., D.C., Fla., Mo., N.Y., Okla., S.C., Tenn., Tex., and Utah).
- New York State leads the country in the percentage of nonwhite women receiving late or no prenatal care. In 1982, 21.3 percent of nonwhite women in that state received late or no prenatal care--twice the national average for nonwhite women. The District of Columbia ranked second, with 21.1 percent of nonwhite women receiving late or no prenatal care.

- Several states show dramatic increases in the percentage of nonwhite women receiving late or no prenatal care. Between 1978 and 1982, Florida's rate jumped by 63 percent; New York's by 34 percent; South Carolina's by 29 percent; Texas' by 11 percent; and Oklahoma's by 14 percent.

II. INCREASING INFANT MORTALITY

Between 1981 and 1982, death rates for all infants increased in 11 states: for white infants in 9 states, and for nonwhite infants in 13 states. National nonwhite infant mortality rates remain unacceptably high as does the mortality "gap" between nonwhite and white infants.

- Death rates among all infants increased in 11 states in 1982 (Ala., Del., Iowa, N.J., N.C., N.H., Neb., Okla., Va., Utah, and Wash.).
- Death rates for white infants increased in 9 states (Ala., Del., N.Y., N.J., N.C., Okla., Utah, Va., and Wash.).

Over the past 2 years, the number of high-risk newborns being transferred to Scott and White Memorial Hospital in Temple, Texas has increased sixfold -- from a half-dozen a year to a half-dozen every two months. The rise in the number of transfers is, according to neonatalogists at Scott and White, the result of an increasing number of uninsured babies in need of intensive care at a time when resources for neonatal intensive services are shrinking. Because these babies have no source of payment, they are sometimes transferred distances of up to 200 miles to Scott and White, one of the few facilities that will accept them.

Recently, the situation has become further complicated as the transport programs that are needed to carry those babies long distances have also begun to disappear because of a lack of funds. The companies that do exist refuse to go long distances. As a result, transport time is exceeding 12 hours in some cases. This is a lifetime for these babies for whom every minute spent without appropriate care means life or death. Although doctors at Scott and White are just beginning to study the information, their subjective impression is that babies who are subjected to lengthy delays have outcomes markedly poorer than other babies being treated at the facility.

- Death rates for nonwhite infants increased in 13 states in 1982 (Ala., Ky., Ill., Md., N.C., Miss., Mo., N.J., Oreg., S.C., S.Dak., Va., and W.Va.).

- The nonwhite infant mortality rate in our nation's capital exceeds that in Cuba and Jamaica, both significantly poorer countries.

- These statewide data mask more severe infant death problems in some city neighborhoods. For example, two Baltimore census tracts show infant death rates as high as 59.5 per 1000 live births. This exceeds 1981 infant death rates in Costa Rica, Panama, Guyana, Trinidad and Tobago, and is more than double rates in the Soviet Union.

III. LAG IN MEETING SURGEON GENERAL'S GOALS

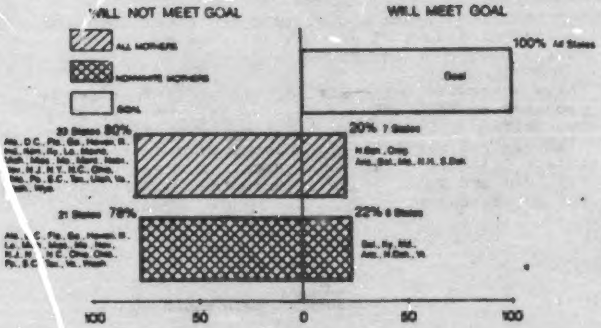
At the current rate of progress, a majority of reporting states will not meet the Surgeon General's modest 1990 goals for reduction of infant mortality. Those that do, will do so in the costliest rather than the most cost-effective way: by saving premature babies through expensive neonatal intensive care rather than by producing healthier babies through adequate prenatal care.

In 1980 the Surgeon General of the United States established the following goals for reducing infant deaths in America by 1990:

- By 1990, low birthweight babies should constitute no more than 5 percent of all live births with no racial or ethnic subgroup exceeding 9 percent of all live births.

  At the current rate of progress, 80 percent of our reporting states will not meet their low birthweight goals for all babies, and 78 percent will not meet their goals for nonwhite babies.

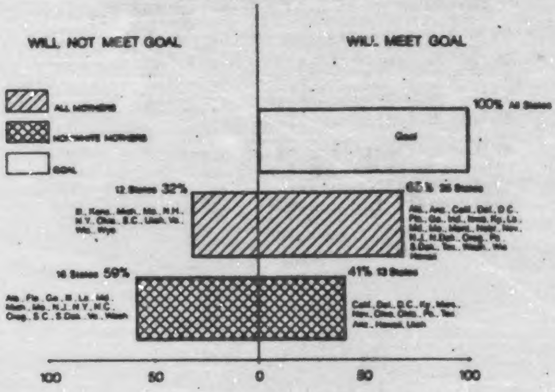
Decreasing Low Birthweight



- By 1990, the U.S. infant mortality rate should not exceed 9 deaths per 1000 live births, with no racial or ethnic subgroup exceeding 12 deaths per 1000 live births.

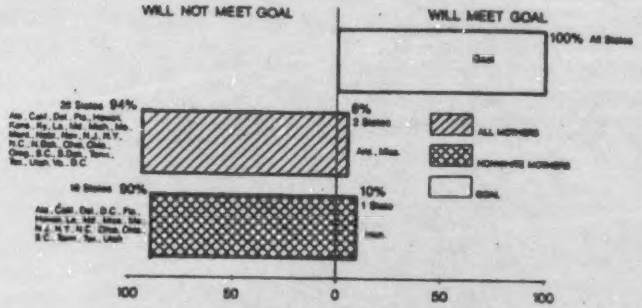
  At the current rate of progress, 32.5 percent will not meet their goals for all children and 55.2 percent will not meet their goals for nonwhite babies.

Reducing Infant Mortality



- By 1990, 90 percent of pregnant women should begin medical care in the first trimester, because of the high correlation between appropriate maternity care and birth outcome.

  At the current rate of progress, 94 percent will not meet their goals for all children, and 95 percent will not meet their goal for nonwhite babies.



Improving Prenatal Care

IV. GROWING EXCLUSION FROM HEALTH CARE

Federal budget cuts and changes in Title V Maternal and Child Health Programs, Community and Migrant Health programs, and Medicaid have contributed significantly to increasing numbers of poor women and children without money or insurance being turned away from prenatal, delivery and other needed care.

- About 90 percent of the Maternal and Infant Care (MIC) clinics we interviewed in 10 states had either had funding levels frozen (equivalent to a 20 percent cut in light of medical inflation) or had their budgets reduced. Clinics in Kentucky and Maine had budgets cut by 50 percent. The MIC in Halifax County, North Carolina, lost over a third of its funds, while MICs in Hartford, Connecticut, and North Central Florida lost 25 percent of their funds. MICs in New Mexico, Mobile, Alabama, and Charleston, South Carolina were forced to slash staff by 50 percent. Only 2 of the 20 clinics were still able to provide hospitalization costs for the majority of their clients in need.

Frank and Ella Hogan brought their baby to the Ross County Medical Center in Columbus, Ohio, for care. Their desperately ill baby had been examined by a physician at a public clinic in Pike County who immediately referred the Hogans to Ross County so that their baby could be admitted and treated. The Hogans were indigent and had no doctor of their own.

Upon arriving at Ross County, the Hogans were kept waiting in the emergency room for four hours. The baby was finally admitted by a radiologist after the pediatrician on call had refused to admit or treat the baby. The baby died a few hours later without having received medical attention other than that provided by the radiologist.

When asked why he refused to admit the baby, the pediatrician said that he was not going to serve as back-up to any "free clinic." This physician appears to have a history of refusing to admit indigent patients.

- Half of the MICs have had to turn away patients as a result of increased demand, decreased funds, and new eligibility restrictions. In one month, 103 Kentucky women were turned away by MIC projects. In Lexington County, Kentucky, 55 per 1000 pregnant women were not receiving prenatal care in 1982. Two years ago, this number was only 32 per 1000 pregnant women.

- In the entire state of Florida las year, only 38 percent of the 65,000 pregnant low-income women were getting comprehensive prenatal care. MIC personnel in Florida reported that in one hospital, 300 of the hospital's charity care maternity patients (30 percent) delivered with no prenatal care. The majority of the patients stated that they had tried unsuccessfully to get affordable care. Demand in that state was so great that there was a two to four month waiting period for an initial appointment at the health department.

- In Michigan, 10,000 of the 140,000 women delivering babies had fewer than 5 of the 12 recommended prenatal visits. A recent study by Oregon health officials found that since 1980, a smaller percentage of pregnant women have been receiving early prenatal care. In Oklahoma, health officials report that almost 50 percent of the state's pregnant women are going without adequate prenatal care.

Around midnight, Eugenia Martinez arrived at St. Mary's hospital in Palm Beach, Florida with her baby, Enrique, who was vomiting and running a fever. The family had to wait over an hour before a physician (a neurologist, since no pediatrician was "available") briefly examined the child but refused to provide any treatment saying, "he didn't know anything about children's diseases." The neurologist told the Martinez family, which was poor and without a pediatrician, to stop giving the baby milk and sent them home. Two days later the baby was hospitalized for two weeks at John F. Kennedy Memorial Hospital, a distance away, suffering from dehydration and feeding problems.

- Some MIC projects no longer can provide any medical prenatal care. In 5 programs, the MICS are able to provide only supportive services (e.g. counseling, nutrition and health education), while the women must purchase medical services through a private physician. Transportation is now rarely provided.

- 84 percent of the MICs surveyed report increased demand for their services, which they relate to high unemployment. In areas not directly experiencing high unemployment, many of the families seeking services had recently moved from more depressed areas in search of work. Nine MICs reported that the increased demand was also related to the impact of Medicaid cuts.

- More restrictive Medicaid eligibility in many states has resulted in more uninsured low-income women seeking affordable care. Low Medicaid reimbursement rates have resulted in few private physicians willing to accept poor clients. A survey done by the health department in Hartford, Connecticut, showed that 87 percent of the obstetrician-gynecologists in the area refused Medicaid patients. In one Kentucky county where previously 12 physicians had attended Medicaid patients, this is now down to four.

- Some hospitals like the Medical University of South Carolina have announced that they would no longer accept uninsured patients. Others refuse Medicaid patients or, like the Orlando Florida Medical Center, have established quotas on the number of patients they will accept at the Medicaid rate.

THE WALKERS

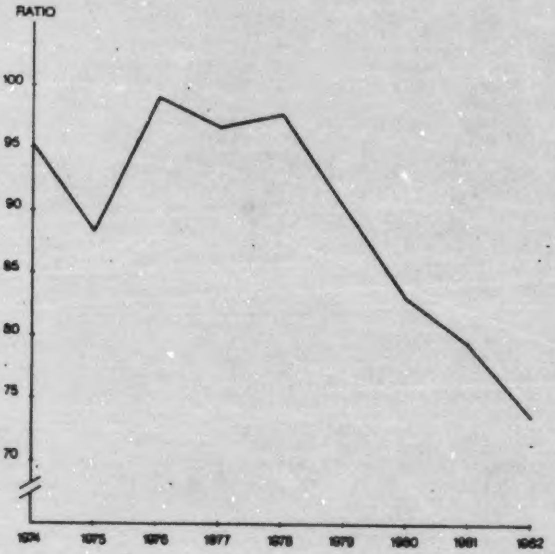
Jean Walker, in labor, was rushed one night in early January to a small south-central Tennessee hospital along the Tennessee-Alabama border. Her husband, Edward, was a day laborer who earned just enough money to disqualify them for public assistance. The family had no health insurance.

Mrs. Walker had no physician because the two obstetricians in their county wanted $400 for delivery. Mrs. Walker arrived at the hospital in the middle of the night amidst an ice and rain storm. The hospital staff admitted her to the labor room and got her into hospital clothing. A few minutes later, the nurse came back and told her she was sorry but she would have to leave because she had no doctor. Mrs. Walker dressed and returned to the waiting room, still in labor. The nurses thought better, readmitted her to the labor room, and undressed her again. The nurses contacted the two local obstetricians in town. Both refused to deliver her because it was late at night, the weather was bad, and she had no money. The nurses told Mrs. Walker to get dressed again. They told her they were very sorry but that she would have to go elsewhere. The Walkers drove 35 miles through the storm to a hospital in Huntsville, Alabama where their baby was delivered.

V. CHILDRENS' SHRINKING MEDICAID SHARE

As a result of massive federal AFDC and Medicaid cuts and severe institutional inflation, the children's share of Medicaid has shrunk significantly in a period when the number of poor children has increased dramatically.

- Medicaid has become increasingly less responsive to children living in poverty since 1980. The rate of Medicaid recipients per 100 poor children is now lower than it was in 1972, when the program was still in its initial implementation stages. In the 1974-1975 recession, the rate of Medicaid recipients per 100 poor children increased significantly. In this recession, an increasingly smaller percentage of children in poverty are receiving services.



NUMBER OF CHILDREN RECEIVING MEDICAID PER 100 CHILDREN IN POVERTY, 1974-1982 (*fiscal years*)

- The number of children living in poverty grew by 2,025,000 or 18 percent from FY 1980 to 1982. The number of Medicaid recipients grew by only 317,000 or 1 percent. Nearly 95 percent of this growth had appeared by FY 1981--the year before the Reagan cuts took effect. The percentage of poor children who are Medicaid recipients fell from 83.5 percent (after the 1974-1976 recession when the demands on the program lessened somewhat) to 73.5 percent. The ratio of recipients to poor children, already low by 1980, continued to fall.

One Rhode Island pediatrician reported to Child Watch that:

The critical need is service to those families who had insurance, but due to the recession have lost jobs and those benefits. Their children are being affected because the parents do not take them for routine medical service. Neither do they take the children for minor ailments. The result is the pediatricians are doing more telephone prescribing to forestall a visit to the office. They are also requesting fewer laboratory services as patients cannot afford them. The pediatrician is able to get less information about the child's actual condition and medical services are more stop-gap, less efficient. Children the pediatrician sees are acutely ill and are taking longer to get well.

- Just as Medicaid has become less responsive to poor children, it has also provided less support for those children who do qualify for assistance. Between 1979 and 1982, the children's share of total Medicaid payments dropped from 14.9 percent to 11.9 percent--a 20 percent drop in share of payments despite a slight increase in the percentage of Medicaid recipients who are children. Furthermore, real dollar payments per child recipient dropped by over 16 percent between 1979 and 1982, meaning that less services were being purchased for each recipient child.

- Children bore the brunt of Medicaid cutbacks and changes. In fiscal 1982, 700,000 children were thrown off AFDC and Medicaid as a result of the Omnibus Budget Reconciliation Act. Of the families cut off, researchers funded by the Reagan Administration found that over 44 percent had no health insurance coverage.

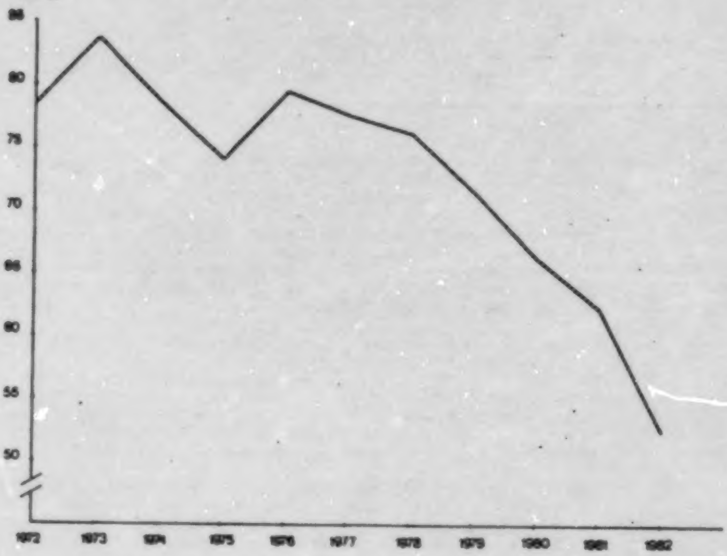
Kathy Titus of Dayton, Ohio, testified in the Congress recently about one family whose father lost health insurance along with his job. When his 11-year-old son punctured his foot with a nail, the father, an unemployed auto worker, had been laid off for 15 months. He hesitated to go to their regular family doctor because they could not pay him. As a result, the family did not seek treatment until their son's foot was "swollen so badly he could hardly walk." They brought him to a hospital emergency room where the doctors wanted to admit him. Since the father lacked hospitalization coverage he refused. They took antibiotics and went home. The boy was back about a week later, with an infection that spread to his bone causing osteomylitis and requiring hospitalization for three and one-half weeks.

VI. REDUCED AFDC FOR POOR FAMILIES

Thousands of truly needy children have suffered loss or decrease of AFDC benefits despite increasing child poverty.

- The average number of children on AFDC per 100 children in poverty has declined continually since 1976, and dropped dramatically from 71.8 percent in 1979 to only 52.5 percent in 1982. Although the number of children under 18 in poverty increased by over one million between 1981 and 1982, the number of children on AFDC dropped by over 550,000.

NUMBER OF CHILDREN RECEIVING AFDC PER 100 CHILDREN IN POVERTY, 1972-1982 (*calendar years*)



A Utah father of four children, 14, 12, 7, and 8, and a self-employed contractor, has had no work other than short-term jobs for over a year. The family has had the gas turned off for three months because of a $379 debt. Family members take showers at different neighbors', but this has been going on so long it is beginning to be a real problem. The family applied for food stamps after about six-months and the Latter Day Saints Church helped a little. Two months ago the mother discovered a lump in her breast. She was tempted to tell no one because of the difficulty they would have paying for medical care, but she mentioned it to her 14-year-old daughter who told her grandmother. A doctor said she needed surgery immediately, but the first hospital refused her admission. A second hospital admitted her and will try to get Medicaid coverage. The mother says, in desperation, "We're thinking of splitting up because we can't see any other solution right now. But with this medical thing, I need my husband more than ever."

Utah eliminated its AFDC-UP program in June 1981, and within one year 22 percent of the terminated cases reopened as regular AFDC cases primarily due to divorce or desertion.

- State welfare officials estimate that 725,000 families, including 1,450,000 children, lost AFDC eligibility or had their grants reduced as a result of FY 1982 changes in federal law alone. Although the greatest impact was on working families, a study by the Center for the Study of Social Policy indicates that even AFDC recipients with no earnings, the "truly needy," lost an average of $27 per month nationwide as a result of the OBRA and TEFRA changes.

- Since 1981, many states have reduced cash assistance to women who are pregnant for the first time. Although 30 states previously provided AFDC to pregnant women from the beginning of pregnancy, only 6 states have continued such cash assistance at the AFDC level through pregnancy. Thirteen provide no cash assistance before the sixth month; 4 have eliminated all cash assistance.

- Before 1981, 35 states provided AFDC to students enrolled in school full-time until 21. After the Omnibus Reconciliation Act, only 5 states continued to cover students at the AFDC level out of state funds beyond age 19 if they could be expected to complete high school or vocational school. One out of every 4 seventeen-year-olds from families living in poverty is enrolled in grade 10 or below, compared with one out of every 10 children from nonpoor families.

- Over the past seven years, the average monthly AFDC payment in constant dollars has declined as inflation has eroded purchasing power. AFDC grant levels have not increased at the rate of inflation. Between 1976 and 1983, AFDC benefits in constant 1983 dollars decreased over 15 percent in more than half the states.

VII. STRESS OF UNEMPLOYMENT FUELS CHILD ABUSE

Epidemic unemployment and severe cutbacks in AFDC, Medicaid, nutrition programs, social service, housing assistance, and child welfare have increased family tensions and caused parents to strike out at their own children or consider foster care. A growing sense of desperation, helplessness, and hopelessness pervades the poor.

- A fall 1982 opinion survey by the National Committee for Prevention of Child Abuse found that over the last 12 months, child abuse reports continued to climb in 45 states. More than 38 states reported significant increases in reports of severe abuse cases. Forty-three states reported noticeable increases in reports of sexual abuse.

- The increased reports of abuse and neglect are in part attributable to increased financial pressures on the families. A survey of changes in child protective services around the country conducted between February and April of 1983 by the American Humane Association, revealed that the majority of respondents involved in public social service systems reported significant increases in the number of referrals, the severity of client problems, and the number of clients facing economic problems from recent unemployment and loss of benefits.

- A recent study by state officials in Maine revealed a 13.5 percent increase in the number of child abuse and neglect referrals (from 7,456, involving about 11,000 children in 1982, to 8,465 cases involving about 13,000 children) in 1983. The number of substantiated cases increased by 14.6 percent. Even more alarming was the fact that physical and sexual abuse cases which represented 27 percent of the September 1982 caseload represented 43 percent of the September 1983 caseload.

- The state of Iowa experienced a 16 percent increase (from 6,419, to 7,446) in the number of child abuse and neglect reports between the first 6 months of 1982 and the first 6 months of 1983. The increased demand for investigations came after a reduction in investigative staff.

Mr. LELAND. Mr. Sanders.

TESTIMONY OF ALAN SANDERS

Mr. SANDERS. Mr. Chairman, thank you for the opportunity to address the committee today. My name is Alan Sanders. I am a nutritionist and a WIC Program specialist for the Food Research and Action Center in Washington. I was the researcher and author of the report "The Widening Gap" discussed by Representatives Dixon and Boggs and by the members of the committee. I will not highlight again the findings of that report.

I would like to pick up on a couple of points made today about the coordination of efforts and the concern on the part of the administration with the problem of infant mortality in this country, notably the black infant mortality problem. Dr. Brandt mentioned that the WIC Program is a successful program, he thinks that it may be doing some good; but he is not too sure of it.

I understand it is not under his Department's jurisdiction, but I would like to point out something in terms of what this administration is doing about the WIC Program these days. At a time when the infant mortality issue has been brought to the headlines and sensitivity has been raised about it, President Reagan in his fiscal year 1985 budget is proposing to remove 450,000 low-income women, infants, and children whose nutritional needs depend upon that WIC Program, not only nutritional benefits, but prenatal screening they get in the WIC clinic and nutrition education, so I was very concerned and disturbed to hear that the Department of Health and Human Services and the Federal Government is not doing all they can do these days to benefit low-income women and to prevent low birth weight, which is the greatest predictor of infant mortality.

The other issue I would like to discuss is poverty. We know that poverty is associated with low birth weight and infant mortality. Over the past couple of years the administration has decided they wanted to count poverty a little differently than they used to, and a couple of weeks ago we heard from the Census Bureau that no matter how they do count poverty, the problem has grown more severe over the past couple of years, either using the old poverty guidelines where you do not count in medicaid benefits and other noncash assistance, poverty grew by 32 percent between 1979 and 1982; if you do count those noncash assistance programs, poverty grew from 39 to 52 percent.

Regardless of what measure we are going to be depending upon for counting our poor population, 8 million new people fell into the poverty ranks between 1979 and 1982, but as poverty has grown, all the antipoverty programs have dwindled. Infant mortality rate and low-birth-weight incidence for a nation or a subpopulation are accepted indicators of health status and welfare. The growing gap between survival rate of black and white infants in this country may be just the first signal of a drift into a period of a widening gap between income in these racial groups.

There is a demand to respond to the situation before it is fully expressed as a continuing widening gap. We should not have to wait for any more studies or any more data to appear before this committee and Congress to shock this Nation. Low-income women and infants do not need better studies or more studies. They need benefits. I think that we have to reverse the current priorities in budget policies of this administration and ensure that each new life in this country is given an opportunity to be a healthy one.

I thank the committee for the opportunity to discuss our findings, and I would like to submit the full report and literature review for the record today.

Mr. LELAND. Without objection, all materials you wish to submit will be received and reviewed by the subcommittee.

[The prepared statement of Mr. Sanders and the summary of "The Widening Gap" follow. The full report may be found in subcommittee files.]

STATEMENT OF ALAN SANDERS

FOOD RESEARCH AND ACTION CENTER:

Mr. Chairman, and members of the committee, my name is Alan Sanders; I am a nutritionist at the Food Research and Action Center (FRAC) in Washington, D.C. For twelve years, FRAC has been a national advocate for the millions of low income people whose daily nutritional and health needs depend upon the federal food assistance programs. I appreciate the opportunity to address the subcommittee today, and to elaborate on a recent FRAC report on U.S. infant mortality and low birth weight.

As the lead researcher and author of the report, "The Widening Gap", I would like to briefly highlight some of the study's findings and then present a most disturbing paradox in this Administration's claims of concern and actions over the past three years.

Begining in June 1983, FRAC conducted a nationwide study of infant mortality rates and low birth weight incidence for the period 1978 through 1982. Infant health data were collected from the Registrar of Vital Statistics in each of the State Health Departments that responded to the survey. In addition, FRAC requested each State Health Commissioner to include any information on prenatal care and teenage pregnancies in their respective populations. Although we were interested in obtaining infant mortality and low birth weight data by both racial and income group, FRAC was only able to collect infant health data that were dissaggregated by race.

FRAC understands both the sensitive nature of infant mortality and the need for accuracy and professionalism in researching and reporting on this issue. Therefore, FRAC invited a group of maternal and child health experts to serve on an Advisory Committee for the duration of this study.

The following highlights of "The Widening Gap" point to a continuing, and in some cases, worsening problem of infant mortality and low birth weight among black infants in each of the United States. I point out that these findings are based on final 1978 - 1982 data from thirty-four (34) states, the District of Columbia, and City of New York. The remaining sixteen (16) states were not able to provide final 1982 data by November 1983. This sample represents approximately 60% of all white births and 70% of all black births in the United States.

WHAT THE FRAC STUDY FOUND

0 On average, black infants under one year of age die at a rate twice that of white infants in each of the states and major cities studied. In some cities, black babies are dying at a rate three to almost four times the white infant death rate.

0 In the thirty-four states studied for the five-year period 1978 to 1982, an additional 19,647 black infants died before their first birthday due to the unequal rate of infant survival. Each year, close to 4,000 black infants die because they face a mortality rate that is double the white infant death rate.

0 Although the infant mortality rate has declined for both the white and black population during the period 1978 to 1982, the slope of decline has been steeper for the white infant population. Witness that in 1978 the black infant mortality rate was 86% higher than the white rate but by 1982 the black infant mortality rate was now 95% higher.

The result of this unequal rate of decline is a widening of the gap between the survival rate for white and black infants. At a time when this gap should be narrowing, black infants continue to die at a rate twice that of the white newborns. It is no wonder that this nation's international rank in infant mortality continues to be a deplorable sixteenth.

As the infant mortality issue has been brought to the headlines, federal health officials have continuously relied on the national infant mortality and low birth weight averages as indicators of the public's health. Such a commitment to the use of national figures masks the high infant mortality rates that continue to occur in many states and urban areas. Use of national averages is an inappropriate response to the severe conditions of maternal and infant health at the state and local level.

"INFANT MORTALITY BELT"

O FRAC reported that an "infant mortality belt" exists in this country; an area stretching throughout the entire south and south-central states, the midwest and state of New York. In each of these states, the infant mortality rate is higher than the national average. Not surprisingly, the "infant mortality belt" is also home to the majority of black Americans.

RISK FACTORS - INADEQUATE PRENATAL CARE & POVERTY

Coinciding with the collection and analyses of infant health data, FRAC completed an in-depth review of the existing medical literature to determine the array of risk factors that are associated with low birth weight and infant mortality. I would like to focus on two risk factors that have been proven to play a critical role in determining pregnancy outcome and infant survival-- prenatal care and income status.

Health experts are in agreement that four or fewer prenatal visits, or care begining in the third trimester of pregnancy is inadequate, and places a woman and the newborn infant at medical risk. The effectiveness of prenatal care in reducing the incidence of low birth weight and infant mortality is strongly suggested by the findings of countless studies that are included in the literature review).

Inadequate prenatal care is one risk factor that is a signal of a much larger problem -- poverty. The association between poverty and high infant mortality is not news: the two have been linked since vital statistics were first collected over 100 years ago. Falling into the ranks of the poor, pregnant women and infants are faced with the increasing risks of morbidity and mortality. Failure to recognize increases in the poverty population and to provide the necessary remedies is tantamount to ignorance and neglect of the urgent health needs of low income women and infants.

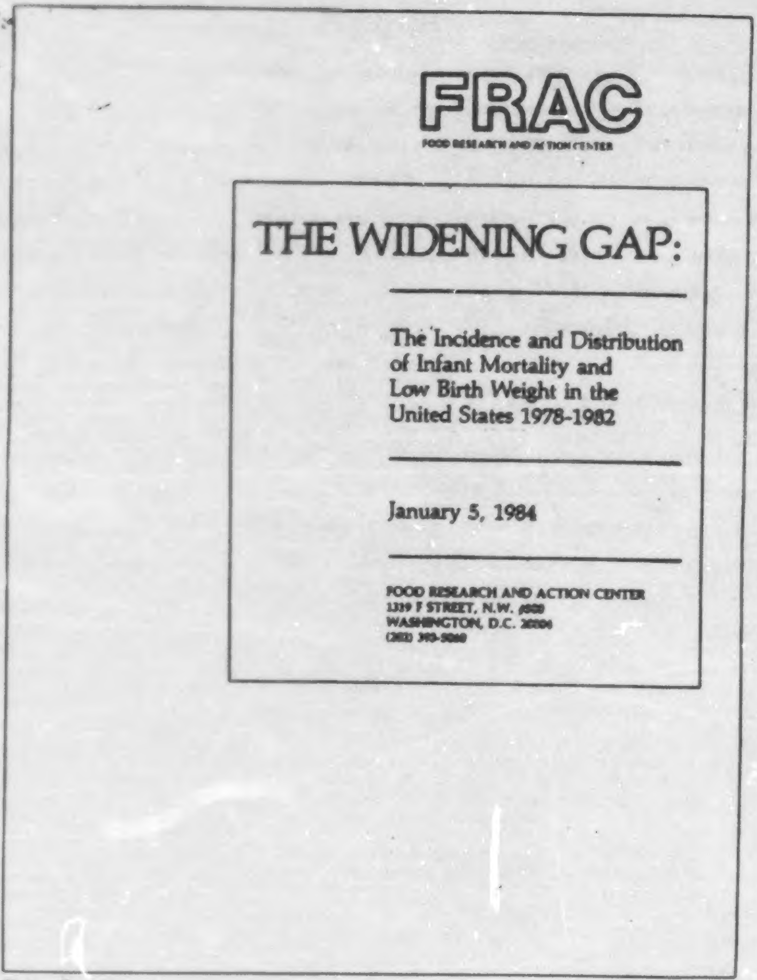
No matter how this administration chooses to draw poverty lines and count our poor, the growth in the number of individuals living in poverty has been extreme since 1979. Using both the official poverty guidelines and alternative guidelines (counting non-cash benefits), the Census Bureau recently reported that from 1979 to 1982 the number of people living in poverty rose from 32% to 52% . Regardless of the definition of poverty used, over eight million additional people have been forced into poverty in four years.

But, as poverty has grown, anti-poverty programs have dwindled. Even as the Census Bureau reported increases in poverty, the administration continues to propose reductions in targeted programs for poor people.

FRAC, as a co-petitioner on the Public Advocate administrative petition, has been intimately involved in the exchange of ideas between the administration(DHHS) and concerned groups. We have heard of the Department's interest in reducing infant mortality and low birth weight, but of their unwillingness to direct resources to reduce the incidence of inadequate prenatal care. I'd like to point to one example of this paradox of concern and cutbacks. At a time when the administration wants to better coordinate proven maternal and child health programs in an effort to improve health status, there is a proposal to cut the major nutritional program for low income women, infants and children. The administration is requesting that 450,000 participants in the WIC program be dropped in FY 1985. Although the WIC program is not under this committee's jurisdiction, I point out that coordination of services is no more than a facade when such drastic public health proposals are made. I would like to thank the Subcommittee on Health and Environment for their resolve in opposing recent efforts by the administration to include WIC in the Maternal and Child Health Block Grant.

The infant mortality rate and low birth weight incidence for a nation, or a sub-population are accepted indicators of health status and welfare. The growing gap between the survival rate of black and white infants may be the first signal of a drift into a period of widening income gap between racial groups and classes in this nation. There is a demand to respond to this situation before it is fully expressed as a continuing widening gap. We should not have to wait for any more distressing data to appear in our newborn population to further shock this committee and Congress. It is now the time to reverse current budget policies and priorities and ensure that each new life is given the opportunity to be a healthy one.

I thank the committee for this opportunity today to discuss our findings in the hope that we are now at a turning point where the presentation of data is transformed into action.



FRAC
FOOD RESEARCH AND ACTION CENTER

THE WIDENING GAP:

The Incidence and Distribution of Infant Mortality and Low Birth Weight in the United States 1978-1982

January 5, 1984

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EXECUTIVE SUMMARY

Beginning in June 1983, the Food Research and Action Center (FRAC) conducted a nationwide study of infant mortality rates and low birth weight incidence for the period 1978 through 1982. Infant health indicators were compiled from the Registrar of Vital Statistics in each of the State Departments of Health that responded to the survey. Racial disaggregations, or breakdowns, of both infant mortality rates and low birth weight percentage were provided by the Registrars wherever possible. The State Commissioners of Health and Directors of Maternal and Child Health were also requested to submit additional information on the health of their pregnant and newborn populations. Only final infant health data are presented in this report.

A total of thirty-six (36) states and sixty (60) cities and urban counties provided FRAC with complete infant health data for the years 1978 - 1982. Data analysis was performed to determine the White and the Black infant mortality rates and low birth weight percentage for the state and city infant populations, and the changes in these rates over the five year period.

Following are the major findings of the FRAC Report:

- On average, Black infants die at a rate twice that of White infants in both the cities and the states studied. In some cities, Black babies are dying at a rate almost four times the White infant mortality rate.
- The gap between White and Black infant deaths is widening. Black infant mortality rates--- which were 86% higher than White rates in 1978 --- were 95% higher than White by 1982.

O There exists an Infant Mortality Belt in the United States that includes those states where the infant mortality rate is above the national average rate. This Infant Mortality Belt stretches across the entire Southeast and South Central states and also includes several of the industrial Mid-Western states and New York.

This study also focused attention on major U.S. cities to determine the status of infant health and improvement during the past five years. The following results indicate a most disturbing trend in our urban areas, most notably in the Black population.

Atlanta - While the White infant mortality rate dropped by 43% between 1978 and 1982, the Black rate fell by only 6%. In 1982, the White infant death rate was 9.0 while the Black rate was over double that rate - 19.9.

Milwaukee - The White infant mortality rate increased between 1978 and 1982 by 7.7%, while the Black rate rose by 39%. In 1982, the White infant death rate was 8.4, while the Black rate was 19.9.

Wake Co. NC
Raleigh - As the White IMR fell by 28% between 1978 and 1982, the Black rate increased by 22%. In 1982, the White IMR was 10.0 and the Black IMR was 28.8 -- nearly three times as high.

An infant's risk of being born underweight, or not surviving until its first birthday is greatly increased when less that adequate prenatal care is provided to the mother during pregnancy. Eight of the thirty-six states that completed the survey provided data on the percentage of live births to women receiving inadequate prenatal care.

Six of the eight states that provided data on prenatal care reported an increase in the percentage of pregnant women receiving inadequate medical care. For those states able to provide prenatal care data by race, Michigan, Delaware, Mississippi and Ohio, it was reported that inadequate care pregnancies in the Black population were not only close to double that of the White population, but also that this rate had increased during the years 1980 - 1982.

The years studied in this report on infant health status (1978-1982) cover a period when increasing numbers of Americans were out of work and living in poverty. Coupled with this economic downturn was the pullback of federal support for many of the basic health and nutrition programs that are directed to the low income population for the purpose of improving the outcome of pregnancy and ensuring health in the critical first years of life. Progress in the reduction of the U.S. infant mortality rate, particularly in the Black population, is threatened as long as the impediments of poverty and inadqequate health care continue to increase.

STATEMENT OF VICKI ALEXANDER

Mr. **Leland**. Dr. Alexander.

Dr. **Alexander**. Thank you, Mr. Chairman.

I want to thank you for the opportunity to appear before the distinguished committee here today. I feel somewhat awkward here today. As far as I know, I am the only practicing obstetrician dealing in a central ghetto area that has been before you here today and I hope that my testimony can add a different dimension to what we have all heard.

I see myself as speaking for all those black women out there who have had babies who have died, or who have had babies with cerebral palsy, babies who have other problems with learning disabilities.

I don't come to you with only that type of practice experience. However, I am assistant professor at Columbia University and director of a satellite clinic at Harlem Hospital. I am responsible for design and implementation, also, of prenatal prevention programs from San Francisco, where I was head of the perinatal projects there, to New York. I have also been active in the struggle for women's rights through the National Alliance Against Women's Oppression.

Therefore, I feel I am able to speak with credibility and experience when it comes to infant mortality and its impact on women.

I am somewhat disturbed and angry at Dr. Brandt for his testimony this morning, as well as angry at the actions of the Reagan administration over the last few years.

The premise of this current administration is that we don't know what causes low birth weight, as we heard Dr. Brandt say this morning over and over.

We don't know what to do because we don't know what causes low birth weight.

Well, I beg to differ with Dr. Brandt. I feel even though, yes, studies are always possible, we have participated in many studies, I myself within the San Francisco study that was cited previously as well as in community surveys that have been done around infant mortality.

It has been proven beyond a doubt. I don't think more studies are needed. I don't think a low birth weight task force is needed right now.

My distinguished colleagues have documented this information. If there is anything I could add in terms of documentation and numbers, I would be willing to do so.

I would like to digress for a moment because my prepared statement had a lot of statistics in it that I don't need to actually bring out here again. I just feel it is pretty important for people to recognize what it feels like to be on the firing line, on the front line with women coming to you asking for care and you have to say, "Sorry, there are no openings in our clinic today. Tomorrow, next week, a month from now, maybe."

I want to give an example of someone I saw this week in the clinic. Quite disturbing. I saw her for a hot minute in the clinic and sent her right to the delivery room. She is a young woman who came in, her first pregnancy, did not get prenatal care because she had no money; the things we have been speaking about here today.

She works. She tries to work. She earns just slightly over the amount eligible for medicaid. She, therefore, is not eligible for medicaid, and sought care elsewhere. Was refused in several places because she did not have the upfront money.

She came in with labor pains. I sent her directly to the delivery room. She was premature, 7 months. She went on to deliver a premature baby, a baby that was severely growth retarded. This baby in the intensive care unit will cost us $1,000 a day. The mother subsequently developed an infection in her womb and is still hospitalized.

These are the types of cases that I see daily.

I stand at the bedside of these mothers, some white, many Latin, but mostly black, at the bedside of these mothers whose babies are dying, and when I know it can be prevented. I don't want to hear about task forces.

How can representatives of the current administration sit up here in Washington, DC, in their protected environment on the Hill, maybe at best walk through a clinic now and again? How can they possibly know the anguish of such a mother who has just lost her child? How can Dr. Brandt say to her, "We don't know what caused your baby to have low birth weight. We don't know why your baby died and so therefore we can't allocate enough funds to pay for any improvement"?

As a black, as a woman, as a practicing physician on the front line in Harlem, I say no to what Dr. Brandt says and to what the Reagan administration has been doing over the last several years.

Our people are not ignorant. It is the administration that is consciously, despite what Dr. Brandt has said from here today, belittling the problem, hoping that somehow maybe it will go away. Hoping that the majority of the population in this election year, I might add; that is, the white population, will not be appalled by this racial difference in infant mortality. Lip service only is what is given while our clinics are closed and our babies are dying.

The community-based Infant Mortality Coalition in California aptly describes the ongoing infant mortality situation as genocide through neglect perpetrated by the U.S. Government, and under the current administration of Ronald Reagan, I would say that it is genocide and it is being perpetrated right here today through the words of Dr. Brandt and that is by purposeful neglect, because we have the data, we have the information.

I will leave with you the questions, how long is it going to take to change it? Why should black babies die twice as frequently as white babies? How many bedsides am I going to have to sit at constantly over and over, and how many times are we going to have to take time away from that patient and come in here to Washington, DC to say it over and over again?

Thank you.

Mr. LELAND. Thank you.

I thank all of you very, very much for your eloquent testimonies.

Let me just ask you, and each of you can respond, what, in concise terms, do you think the administration really ought to be doing? Maybe one, two, three things. What should the administration do?

Ms. **Blackwell**. In the administrative petition which, by the way, we would like to have submitted for the record—we filed that in June. We laid out some remedies. I would like to highlight the ones that are absolutely essential.

[The document referred to was printed in the June 30, 1983, hearing of the House Select Committee on Children, Youth, and Families, and may be found in subcommittee files.]

Ms. **Blackwell**. Overriding each remedy that was proposed was the need for national leadership and commitment to solving the problem. We have yet to see that.

As part of that commitment, we need for the Federal Government to set a prenatal standard for the States so there is uniform prenatal care across the country.

There are already options available to the States so that poor women can be brought into the system and get either current medicaid prenatal care or the comprehensive care that we are advocating. In any event, those options need to be exercised by the States.

The States need to be told that they have the options, the options need to be clarified, worked with. They need to be informed that it is cost effective for them to provide prenatal care for poor women so that expenses of providing care for small babies once born can be reduced. The States need all that information.

Also, we cannot forget that the need for outreach is essential. We may have reimbursement and we may have available resources, but if people don't, one, understand the importance of those sources; and two, understand where and how they can take advantage of them, they will not be used to their fullest.

So we need an outreach program. Also, we need coordination, coordination among all the agencies that are seeking to provide prenatal care so efforts are not duplicated.

Mr. **Leland**. Very good.

Would anyone else care to comment?

Ms. **Rosenbaum**. Mr. Chairman, I hardly know where to start. First, there should be no more cuts in programs. The President is asking for $3.38 million more out of medicaid. Obviously most of those cuts are going to bear disproportionately on children because children rely so disproprotionately on that program.

The President has asked for a nominal increase for title V. I am sure Dr. Taylor can address the impact of this increase request better than I.

There can be no more cuts in programs like title V, family planning, community and migrant health centers. They all need far greater allocations than they are receiving now.

Finally, of course, the President should not only be supporting this committee's child health insurance legislation, and the committee's unemployment health insurance legislation, but should, as this committee did, admit that the amount budgeted for those initiatives falls far short of the amount needed to close the gap between poverty and access to health care and press for greater levels of funding. The Reagan administration should in fact be reviving and improving upon the legislation that was championed by this committee a number of years ago which would have much more generously provided health care to pregnant women and infants.

Mr. **Sanders**. I would just like to add to the previous statements that the WIC Program, which I mentioned President Reagan slated for reduction of close to a half a million individuals, is still only serving 30 percent of those individuals in this country who are eligible for the program. It is a proven program, and to turn around, as part of your coordinated effort to reduce infant mortality and cut the program back, is not what the doctor ordered.

Mr. **Leland**. Dr. Alexander?

Dr. **Alexander**. I can't add a lot to what people have said. I think the only difference that I might state is that I feel that the administration needs to look at the current studies that have already been done that are well documented rather than providing funds for more studies to take place. Also, I think it might be a good idea to talk to some of the women on the street and see what they think. When we did this in Oakland, CA, women on the street oftentimes knew what was necessary to get done to improve their outcome of their babies.

Last, I think that a concerted effort within our medical school has to be made to train doctors to be able to go into these areas and provide for care so there is a certain way in which—when you become a doctor you want to earn a lot of money, but there is also that commitment to peoples' care that is absolutely necessary and that is required also.

Mr. **Leland**. Thank you.

Dr. Taylor, would you like to respond?

TESTIMONY OF JEFFREY R. TAYLOR—Resumed

Mr. **Taylor**. I would be happy to. Thank you.

In my report, I cited four recommendations. The first was that we need to make children a priority again in the United States and——

Mr. **Leland**. I couldn't hear you very well.

Mr. **Taylor**. We need to make children a priority again in the United States.

Mr. **Leland**. I hope your reiteration will reach the White House.

Mr. **Taylor**. I hope so, too.

The reason I say that, I think although we are a relatively young country, I hope we are going to be a very long-lived country and to do that you have to begin to think in longer time frames. If we are to become the information and scientific- and service-based country of the future, that means that these children are going to have to be able to enter our labor force and enter it with their brains intact, their bodies intact, having had a good education, and to be able to take up their responsibilities.

I think the Congress is going to have to begin to ask the question who is going to pay the Social Security bill in the year 2020?

I can tell you that if you expect—in Michigan, for example, we have now 1 in every 4 of our children being born into poverty—if you expect those children to somehow by magic be healthy, well educated, and full participants, I don't see it coming. So I say a longer time frame and some priority on kids.

The second recommendation, financing. We will have to put our money where our mouth is. In Michigan, we have bipartisan support to make prenatal care a right of citizenship in our State over the next 2 years.

We have bipartisan support for this plan. The Governor put $1 million behind it.

Mr. LELAND. Excellent.

Mr. TAYLOR. And it is in the legislature now. We have had many legislators of both parties active in this process and they will be down here asking for the rest of the funds that we need to make this program go.

Family planning, WIC, the CHAP expansion. All of these are important. Family planning needs $30 million now.

In maternal and child health, we need a supplemental to get to $483 million this year and $500 million as Representative Conte suggested for next fiscal year.

We need programs to help States like Michigan and other localities with problems to provide prenatal care and infant care.

Then I believe that the WIC Supplemental Nutrition Program should be increased by 50 percent so that we are meeting 75 percent of the need there. We have a lot of hungry pregnant women and infants in this country and the study I submitted to you that documents the hunger that is there.

Three, we need a central, automated reporting system. As Dr. Williams at the University of California/Santa Barbara has indicated, and Dr. Starfield of Johns Hopkins, we can't do it with 1980 data. We need to know about changing conditions vis-a-vis infant mortality as they occur so that we can take appropriate action. In the last area, I think we need the leadership of the Congress and I think the new Select Committee for Children, Youth and Families here in the House is excellent. We need a corresponding unit in the Federal Government bureaucracy, if you will. The Children's Bureau was dismantled in the late 1960's. We are, I think, perhaps the only major industrialized country in the world without a major unit who regularly reports to the President and the Congress about the needs of children.

So those four recommendations, sir.

Mr. LELAND. Dr. Taylor, the committee apologizes for having slighted you somewhat earlier, but——

Mr. TAYLOR. I don't feel slighted, sir.

Mr. LELAND. The committee had to proceed to the administration witnesses before it got too late.

I want to assure you that the record is still open for questions that will be submitted to you.

I understand Mr. Nielson, the gentleman from Utah, had some questions he wanted to ask you, and I am sure that other committee members may have some.

Mr. TAYLOR. I would be happy to respond for the record, sir.

[The following letter was received:]

STATE OF MICHIGAN

JAMES J. BLANCHARD, Governor

DEPARTMENT OF PUBLIC HEALTH

3500 N. LOGAN
P.O. BOX 30035, LANSING, MICHIGAN 48909
GLORIA R. SMITH, PH.D., M.P.H., F.A.A.N., Director

April 13, 1984

Richard Levinson
Special Assistant
Energy and Commerce Committee
Subcommittee on Oversight and
Investigation
2323 Rayburn Health Office Building
Washington, D.C. 20515

Dear Mr. Levinson:

This is in response to the request to provide information on the relationship between unemployment economic activity and infant mortality. This question was raised at the hearing on infant mortality on March 16 but there was insufficient time to answer for the record.

Dr. Harvey Brenner of Johns Hopkins University prepared, perhaps, the classic public health paper on the relationship between fetal, infant and maternal mortality rates during periods of economic instability. In that paper, which is referenced in my full report, Dr. Brenner concluded:

> The results . . . indicate that significant changes in trends in perinatal, neonatal and post neonatal maternal mortality occur regularly in the United States as a result of environmental change associated with economic fluctuations. The evidence indicates that economic recessions and upswings have played a significant role in fetal, infant and maternal mortality in the last 45 years. In fact, economic instability has probably been responsible for the apparent lack of continuity in the decline of infant mortality rates since 1950.

Studies by Arden Miller indicate that health status in the United States is closely linked to socio-economic status. This study is also referenced in my full report. Dr. Miller has concluded that perhaps because of the "nation's relatively weak commitment" to assuring participation of all people in essential health services that these socio-economic status differences continue to accentuate differences in health status between socio-economic groups. Dr. Miller concluded:

> (Data are now available) . . . to leave responsible policy makers to the inescapable conclusion that the health of children, pregnant women and poor families suffering and in great jeopardy. These adverse effects must be attributed to a combination of circumstances that include serious recession increased poverty rates for households with children and

> diminish health benefits and social support services. In a time of local or widespread economic reversals, health services need to be expanded rather than contracted.

Dr. Marilyn Poland of Wayne State University in an extensive review of unemployment stress and infant mortality in Detroit concluded that economic downturns are in a large part responsible for Detroit's high infant mortality rate. Her paper also referenced in my full report, describes stress caused by economic downturns at various levels of government, on various family members, and on the pregnant woman and newborn infant. While firm conclusions were elusive, in terms of the exact medical processes involved, Dr. Poland cited many associated and stress related factors which appear persuasive in light of other studies.

A large part of the difference between the infant death rates for white and black infants is due to the fact that a greater proportion of black infants are born at weights below 2500 grams or 5.5 pounds. Evidence also indicates that racial differences are associated with corresponding socio-economic differences.

The view that the racial differential and low birth weight incidence and resultant infant mortality is a genetic phenomenon, and thus cannot be eliminated, has been put forth by some health scientists. However, analysis of birth weight distribution according to socio-economic status among homegenous ethnic populations reveals a clear relationship between birth weight and social class, with the birth weight of black infants of higher socio-economic status is comparable to that of whites. Much of this literature was summarized by the Department of Health, Education and Welfare in its landmark publication Healthy People "The Surgeon General's Report on Health Promotion and Disease Prevention". Particular references may be found in Volume II on Pages 310 and 327.

Other scientists like Gortmacher of Harvard University made intensive reviews of the relationship between poverty, poor economy and infant mortality in the United States. Using national data, Gortmacher has found that the estimated direct effects of poverty on infant mortality are larger than the effects mediated by the birth weight of the child. This is a very important finding since birth weight has been the most powerful predictor of infant mortality from a medical standpoint. Gortmacher also indicated that persistence of poverty and the continuing unequal distribution of health care resources to pregnant women and young mothers in the United States implies that this can be expected to continue in the future.

Antonovsky and Bernstein examined the realtionship between the components of infant mortality and social class. They found that while infant mortality had declined dramatically in the past century, the inverse relationship between social class and mortality has not narrowed in spite of advances in medicine, surgery, sanitation, housing condition etc. These authors concluded that an important focus of action to reduce the social class gap in infant mortality would be through less traditional medical techniques and a broader use of the instruments of social change including education and welfare strategies.

Finally, it is most disturbing to note that while the United States is experiencing an economic recovery and unemployment rates are dropping that there are still widespread areas of the nation which remain in recession and with persistently high levels of unemployment. Michigan is one of those states. We still have a 12.4% unadjusted unemployment rate with over a half a million people out of work. While infant mortality rates in this subpopulation may not be large enough to drive our whole state infant mortality rate upwards, we at the end of 1983 still find ourselves between seven and eight percent higher than the national average in terms of this important health status indicator. The rates in Detroit, Pontiac, Saginaw and Flint, areas which have been troubled by high unemployment, have infant mortality rates substantially above the state and national averages.

Most health authorities believe that infant mortality is a sensitive indicator of the development of a nation. This means it is a relatively accurate index of a variety of factors including economic strength, distribution of income, and relative health status of a country or locality.

I hope that this additional information will be of assistance in preparing the final record of these important hearings.

Sincerely,

Jeffrey R. Taylor

Jeffrey R. Taylor, Ph.D., Chief
Division of Maternal & Child Health

JRT:ac

Mr. **Leland**. Dr. Alexander and Ms. Blackwell, if you would respond more specifically to this question. Dr. Brandt continually stated that a middle-class black woman would still risk the same kind of infant mortality potential that any other black woman, including lower income black women, would risk.

How do you respond to that? I think I heard you loud and clear earlier, Ms. Blackwell. But reiterate, if you would, what your feelings are.

Ms. **Blackwell**. First, the statements made by Dr. Brandt were misleading, because what he said was that even for well educated black women the low birth weight rate was twice that of well educated white women. And while that may be true—my information, actually, is that it is not quite twice but it is lower—the point I was making earlier is that the low birth weight rate for educated black women is significantly lower than the low birth weight rate for black women as a whole and is drastically lower than the low birth weight rate for poor black women.

For example, in 1980, the low birth weight rate for black women was 12.5. The rate cited in Dr. Brandt's testimony for well educated black women was 5.6. That is a significant difference. That would be significant in terms of its contribution to infant mortality.

Another thing that is important to note is that even though black women who are well educated may have more low birth weight babies, my information from talking to health professionals is that those babies are not dangerously low birth weight. Low birth weight is anything under 5½ pounds. A 5½-pound baby has a very good chance of being saved. Due to medical technology, a 2-pound baby has a much better chance than that baby had before, but is dangerously low. Anything less than 2 pounds is, dangerously low.

The tendency is to see educated black women at the higher levels, so they are not contributing so much to the infant mortality.

One more interesting fact is that the 5.6 low birth weight rate for blacks cited by Dr. Brandt is lower than the 6.2 low birth weight rate for whites, which was the national average in 1980.

Mr. **Leland**. Thank you.

Dr. Alexander.

Dr. **Alexander**. Yes; actually, I am very glad that you raise the question. In the work of the Infant Mortality Coalition in Oakland, that was one of the first statistics we saw, and we said, oh, my goodness, what is this; does this legitimize Shockley's statements about genetic inferiority of black people?

Of course, our gut feeling was no. So that as a part of the work that we did, which was interviewing women, we asked what type of care the women got when they went to seek the care, and the way in which someone is perceived in an office depends on the color of their skin. So that if you go into an office and you are black, you are treated substantially different than if you go into that office and you are white—both having money. So that money is not the factor.

There are ways in which you don't get taken to certain hospitals if you are black. If you have an emergency and you go to, for example, any emergency hospital and you are black, they tend to refer you based on the color of your skin to certain areas of the city. So that black women, because of that racial difference, end up at risk just under those circumstances.

But then I think there is another point that needs to be looked at. I think it is inaccurate to compare educated black women to educated white women because if you look at the employment patterns of women who are educated, be they black, it is quite different from the same employment pattern of a white woman. So that I feel that to compare those kinds of data is really not accurate.

We really need to investigate a little more by asking the women themselves more how they get treated when they go in for care, and why then they refuse to go back to that particular doctor.

Mr. **Leland**. Would anybody else like to respond to this?

Let me ask a question that just came to my mind, if I will, and let me plead ignorance on the issue.

Black women who are educated, are they necessarily educated in the area of prenatal care?

Dr. **Alexander**. No; they are not. That was a good question.

Mr. **Leland**. In comparison with white women—Dr. Brandt used very easily the term "educated black women" versus "educated white women". Is there some cultural pattern there? Are all black women really taught about prenatal care, which is, I think, important in the area of considerations of low birth weight? I am concerned whether or not we are talking about an educated black woman in the area of prenatal care.

Dr. **Alexander**. Right.

On the whole, I appreciate your question because the whole question of education comes up as part of the petition and it applies to women who are educated, also. Prenatal education is not one of the things on the list for people to learn about. So that in high schools, in colleges, it is not—unless you have an interest—it is not something that is included in every biology course or every humanities course, so to speak.

So it is not a fair assumption that because you are college educated, that you will be able to overcome some of the myths and whatever that society has put upon you. So I appreciate your question.

Mr. **Leland**. Ms. Blackwell.

Ms. **Blackwell**. No; I have nothing to add to that.

I think it probably is true that there are certainly carryovers throughout the educational process of black people about access to prenatal care. It is an important issue. You don't instinctively know you need prenatal care while you are pregnant. If a person grows up in an inner city community, goes to an inner city high school where this information is not available, and through hard work gets to the point where their education progresses past college, it doesn't necessarily mean that that misinformation gained throughout the process is now no longer there. That may well be a contributing factor, which is why we feel the outreach education is an essential part of bringing people into the health care system.

Mr. **Leland**. I wish Dr. Brandt were still here.

Dr. **Alexander**. I would just like to also caution the committee, when the problem is of such magnitude and we look at only a very narrow sector of black women—after all, most black women are not of that category that we are talking about—we tend to forget what the problem is. So that I would caution the committee in terms of looking at the data and the evidence—and I am sure you are all aware of this; I am not telling you anything new—to look at that with somewhat of a grain of salt.

Yes; we need to investigate that. But that is not the problem.

Mr. **LELAND**. I think we understand that, and I appreciate your caution.

Let me ask one last question, if I might, and I will ask this of all of you—and I don't know who is qualified to respond. I have a particular concern about teenage pregnancy. I realize there is a real epidemic in this country, not only among blacks but among Hispanics, and low-income young girls; whites, also. The problem of the disparity in infant mortality is accentuated by the problem of teenage pregnancy.

Would you comment on this particular problem?

Ms. **BLACKWELL**. We have addressed the problem of teenage pregnancy in the petition and have given it a great deal of thought among ourselves because it is a major factor that contributes to infant mortality. It is not the whole picture. I think it is important to emphasize that. Among blacks if you separate out the teenage births you will find that teenagers account for one-third of the black infant mortality in any given year. It is also true that many of the remedies we have proposed will have an impact on teenage pregnancies as well as nonteenage pregnancy. The changes that we hope will come about as a result of the leadership we have asked which would have every State provide medicaid benefits for all low-income women in need should include teenagers.

The educational program that we have discussed should also reach teenagers so that they know when they do become pregnant that they need prenatal care if they are going to continue with that pregnancy.

Another thing we have found as a result of reviewing programs that deal specifically with teenagers is when they do have the benefit of comprehensive prenatal care they are less likely to be repeaters in terms of second and third pregnancies during their teenage years because they get crucial birth control information and develop a good understanding of their bodies. They become better educated and better informed.

So treating the pregnant teenager is one of the best ways of preventing increases in teenage pregnancy among young women who maybe got off to a bad start.

Mr. **LELAND**. Yes.

Dr. **ALEXANDER**. Just a brief comment.

I have a particular interest in teenage pregnancies and actually, in the obstetric service at San Francisco General Hospital, I ran a teen pregnancy clinic. I think what I—I agree totally with what Angela has said. Additionally I feel it is important to look at when teenage pregnancy became a problem. So if you look at the numbers of black teenage pregnancies there has been slight increases but it has always been fairly high. But when you look at the number of white teenage pregnancies, it is only in the last 10 to 15 years that that rate really increased and that is why the Government is now spending money for teenage pregnancies. They should have been spending it a long time ago.

But I feel this is another way in which the racial differences come down in terms of how the care gets provided. So teenage pregnancy is a big problem but it has been a problem for a long, long time for blacks, a more recent problem for whites.

Mr. Leland. What about Hispanics in the scheme of all this discussion? I understand the Hispanic infant mortality rate is not as high as blacks. It is just a bit above the white infant mortality rate. Why is that? Does anybody have any idea? Nobody knows.

Dr. Alexander. Yes, I have an idea.

As part of some of the research that I have done, I have tried to compare black populations to Hispanic populations in California, and in New York the Dominican and Puerto Rican. We find that the rates are lower than they are in blacks but higher than whites. If you compare for example a rate of about 11 for whites, it is about 16 for Hispanics—this is on average—about 20 to 21 for blacks. So we looked at why is this? And there are some very distinct cultural patterns, that is, food habits that Latin women have when they become pregnant. This is very soft evidence, we are just starting to investigate this, that we feel has an impact in terms of lowering that infant mortality rate.

Plus there is a large community, extended family support for that woman when she becomes pregnant. There are a lot of things she is told to do, and not to do that tend to agree with some of the medical advice. So that on the whole although it is a problem amongst Hispanic women it is not as great a problem as amongst black women.

Mr. Leland. Thank you.

Ms. Blackwell.

Ms. Blackwell. There is one thing I would like to add which is obvious but I think it needs to be said. It is that teenage pregnancy and infant mortality and low birth weight are not in and of themselves associated. The reason you find so many teenagers contributing to infant mortality is because they don't receive adequate prenatal care unless you are talking about a very young girl. What we are really talking about is young women who fit all the other criteria that were discussed in terms of being at risk, conditions that can be improved through adequate prenatal care.

Mr. Leland. Is it true that the teenage pregnant girl has more nutritional requirements than a mature woman, and therefore in order to deliver a healthy baby she would need a greater amount of prenatal care?

Ms. Blackwell. That is why we ask in the petition for a Federal standard of comprehensive prenatal care to be established for high risk populations. If that happened it would be clear to states and clear to practitioners that when you deal with the teenager there is certain nutritional counseling that is absolutely essential and it is very important to talk about smoking and alcohol consumption.

Adequate care aimed at the teenager would solve the problem there, just as it could solve infant mortality problems for other populations.

Mr. Leland. Dr. Taylor.

Mr. Taylor. One brief point.

With teenage pregnancy there are other significant barriers for teens in obtaining care, one of which being—I think it is very important—legal barriers to consenting to receive prenatal care. In most States in fact, including Michigan, a woman under age 18 cannot consent to their own prenatal care. What this in fact does then——

Mr. **Leland**. There is an age barrier?

Mr. **Taylor**. A legal barrier to obtaining care, yes. Unless they have a parent or guardian willing to come in to sign that consent form so they can receive the care, they don't get it.

Now, this is very often for teenagers finding out after a pregnancy test that they might be pregnant, it is a very traumatic experience. The fact is that pregnancy will make itself known in due course. However, what we don't like and what we are trying to address through legislation in Michigan is the fact that the teenager might then withdraw from the care setting, be unable to deal with this issue right up front in the family, and not reappear then until perhaps the sixth month.

A lot of the damage has been done by then. So I think the Congress ought to look very hard at these legal barriers to see if there might be a Federal remedy so that mature minors can consent to their own ambulatory health care, especially prenatal care.

Mr. **Leland**. Let me thank you on behalf of the subcommittees. We greatly appreciate your assistance, particularly since all of you are on the cutting edge of this very serious problem. We hope that we can resolve the problem in the short and long term. We hope we can sensitize the administration to do good, as opposed to what it has been doing. Again I want to thank all of you for participating in this hearing.

The subcommittees will be adjourned.

[Whereupon, at 1:45 p.m., the subcommittees were adjourned.]

[The following material was submitted for the record:]

NINETY-EIGHTH CONGRESS

JOHN D. DINGELL, MICH., CHAIRMAN

ALBERT GORE, JR., TENN.
JIM SLATTERY, KANS.
GERRY SIKORSKI, MINN.
JIM BATES, CALIF.
[illegible] H. SCHEUER, N.Y.
[illegible] J. FLORIO, N.J.
[illegible] J. MARKEY, MASS.
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MICHAEL G. OXLEY, OHIO

MICHAEL F. BARRETT, JR.
CHIEF COUNSEL/STAFF DIRECTOR

U.S. House of Representatives
Subcommittee on Oversight and Investigations
of the
Committee on Energy and Commerce
Washington, D.C. 20515

ROOM 2323
RAYBURN HOUSE OFFICE BUILDING
PHONE (202) 225-4441

February 23, 1984

Dr. Edward N. Brandt, Jr.
Assistant Secretary
Department of Health and
  Human Services
200 Independence Avenue, S.W.
Washington, D. C. 20201

Dear Dr. Brandt:

The Subcommittee on Oversight and Investigations, under the authority of Rules X and XI of the House of Representatives, is investigating the efforts of the Administration to reduce infant mortality. We are particularly concerned about the vastly different rates between black and white Americans, and between low and higher income groups within the country, and the steps taken and planned by the Administration to close the gaps.

To assist the Subcommittee in its inquiry, we request that you identify all offices or divisions of the Department of Health and Human Services which have performed, or are expected to perform, any functions related to collection or analysis of data relevant to infant mortality, or to the preparation, review or presentation of any policy or positions related to data or actions taken or contemplated by the Administration to reduce infant mortality rates. For each such office or division of the Department, please identify, by name, title and telephone number, a program contact person who is knowledgeable about infant mortality rates and who is familiar with the related documents generated, reviewed or received by the office or division. Please provide this information to Subcommittee staff no later than the close of business on Monday, February 27, 1984 at the Subcommittee office, 2323 Rayburn House Office Building.

Further, it is requested that you identify and make available for review all of the documents related to this issue and provide copies of those selected by Subcommittee staff. The documents may include, but should not be limited to:

- all documents which define, describe, or represent rates of infant mortality in the U.S. from 1970 to 1983;

- all documents, including notes from meetings or discussions in person or over the telephone, which bear in any way on the development or presentation of positions or policy of the Administration related to reduction of infant mortality from February 1, 1981 to February 15, 1984; and
- all internal correspondence and memoranda within the Administration, and correspondence between the Administration and any other parties related to infant mortality rates, or reduction thereof, from February 1, 1981 to February 15, 1984.

Please make the documents available for review beginning on Tuesday, February 28, 1984.

In addition to reviewing the documents and obtaining copies of those specifically identified by Subcommittee staff, it will be important for the Subcommittee to conduct interviews of Department of Health and Human Services personnel. As it will be particularly useful to learn your views, I have asked staff counsel, Phyllis Freeman, to call your office to arrange for an appropriate time to meet with you during the week of February 27. We ask your assistance in facilitating access to other Department of Health and Human Services personnel with whom interviews are indicated. Ms. Freeman may be accompanied by Richard Levinson during review of documents and interviews.

We will appreciate your cooperation in making available both the documents and staff involved in addressing this important issue. If you have any questions about this request, please contact Phyllis Freeman at 225-4441.

Sincerely,

John D. Dingell
Chairman
Subcommittee on
Oversight and Investigations

JDD:PFdb

DEPARTMENT OF HEALTH & HUMAN SERVICES
Office of the Secretary
Washington, D.C. 20201

MAR 1 1984

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MAR 1 1984
Subcommittee on
Oversight and Investigations

The Honorable John D. Dingell
Chairman
Subcommittee on Oversight and Investigation
Committee on Energy and Commerce
House of Representatives
Washington, D.C. 20510

Dear Mr. Dingell:

This is in response to your letter of February 24 to Dr. Brandt requesting names of Department employees engaged in data collection of or policy regarding infant mortality. Attached is a list of relevant agency contacts.

Let me review Department policy on interviews and access to documents, which should facilitate the exchange of information.

With respect to the individuals whom your staff desires to interview, advance notice from you will be necessary so that schedules may be arranged in a mutually convenient manner and employees may be apprised of their responsibility to cooperate with your staff and of their individual rights. If your staff are going to be visiting an office at a particular time, advance notice of that visit will enable us to rearrange schedules accordingly in order to make available all of those individuals whom you desire to interview.

With respect to documents which you may wish to review and/or duplicate, please give us advance notice of the subject matter of your inquiry and the category of documents or files to which you would like to have access in order that we can arrange to have those files available and to determine that they contain no information (such as trade secrets, patient specific material or grand jury information) to which access would be restricted by law.

If we can be of further assistance, please let me know.

Sincerely,

Teresa Hawkes
Teresa Hawkes
Acting Assistant Secretary
for Legislation

Attachments

JOHN D. DINGELL, MICH., CHAIRMAN

ALBERT GORE, JR., TENN.
JIM SLATTERY, KANS.
GERRY SIKORSKI, MINN.
JIM BATES, CALIF.
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PHONE (202) 225-4441

U.S. House of Representatives
Subcommittee on Oversight and Investigations
of the
Committee on Energy and Commerce
Washington, D.C. 20515

March 5, 1984

The Honorable Margaret M. Heckler
Secretary
Department of Health and Human Services
200 Independence Avenue, S. W.
Washington, D. C. 20201

Dear Madame Secretary:

On March 1, 1984, the Subcommittee received a letter from Teresa Hawkes, Acting Assistant Secretary for Legislation, in responce to my February 23 letter to Dr. Brandt about the Subcommittee's investigation of the disturbing black-white gap in infant mortality rates. In her letter, Ms. Hawkes set out a brief description of the Department of Health and Human Services' (HHS) policy on Subcommittee interviews with employees and access to documents. We have subsequently learned from HHS employees that on March 2 in a 10:00 a.m. meeting that a different and more detailed policy was outlined orally to employees.

As you will recall from your service as a Member of the House, oversight inquiries are of a particularly sensitive nature requiring the observance of procedures quite different from those followed in the routine legislative process. The ability to obtain information without the constraints of monitoring is essential to protect the rights of all parties. This inquiry process has been likened by the Supreme Court to a grand jury probe and the Congress has been described as the Grand Inquest of the Nation.

It has been consistent Subcommittee policy to give prior notice of employee interviews and to arrange times to be as mutually convenient as possible. The Subcommittee has extended similar courtesies in arranging to review and obtain documents. This does not mean, however, that HHS officials can screen interviewees or withhold documents.

In her letter, Ms. Bawkes alludes to files and a determination "that they contain no information ... to which access would be restricted by law." She cites three examples: (1) trade secrets; (2) patient specific material; and (3) grand jury information. The Subcommittee appreciates your Department's concern for protecting restricted materials from inadvertent disclosure to third parties. With respect to such materials, we would welcome your identifying them by category at the time they are made available. Of course, such screening should in no way delay their being made available.

If they are accurate, the reports from your Departmental employees of the instructions delivered to them by Ms. Bassell in the Office of Legislation are disturbing in several respects. First, despite requests by employees that such instructions be reduced to writing to clarify their responsibilities, the representatives of the Office of Legislation apparently responded that no written direction would be provided.

Second, the employee reports indicate the Office of Legislation outlined three options for employees in responding to Subcommittee interview requests: (1) to come alone; (2) to come with a person of his or her choice; or (3) not to come. As you are well aware, any Departmental sanction of the refusal of an employee to appear for an interview would clearly impede the ability of the Congress to carry out its investigatory responsibilities inherent in the U. S. Constitution. The Supreme Court has expressly recognized the danger to the effective conduct of government if the Legislature's power to investigate the Executive Branch is hampered. McGrain v. Daugherty 273 U.S. 135 (1927), Sinclair v. United States, 279 U.S. 263 (1929).

Subcommittee procedures require that interviews be conducted separately and privately by Subcommittee staff. Should any employee desire personal counsel who is not acting as Department counsel to be present for the purpose of providing advise regarding the interviewee's individual rights, such requests will continue to be honored. This is consistent with the procedures we worked out with your predecessor, Secretary Schweiker.

Apparently, on March 2 employees were instructed by the Office of Legislation to bring absolutely no documents with them to interviews and to package all requested documents for delivery to Ms. Bassell. Ms. Bassell would then forward them to the

General Counsel prior to providing them to the Subcommittee. As you know, this would seriously interfere with the investigation. Subcommittee staff have been instructed to review materials, some of which are essential to the interviews. Employees are entitled to show Department materials to the Subcommittee, and when the Subcommittee requests them to do so it is their responsibility to comply.

Finally, any instruction that a full written report of the interview must be presented to the Office of Legislation constitutes an interference with a Congressional investigation and casts an unacceptable chill on the statutory protections of the communication between employees and the Congress (see 18 USC § 1505, 5 USC § 2301(a)(q) *et seq*. and 5 USC § 7211).

Your cooperation and that of your Department is appreciated.

Sincerely,

John D. Dingell
Chairman
Subcommittee on
Oversight and Investigations

JDD:PTcm

U.S. House of Representatives
Subcommittee on Oversight and Investigations
of the
Committee on Energy and Commerce
Washington, D.C. 20515

April 5, 1984

Dr. Edward N. Brandt, Jr.
Assistant Secretary
Department of Health and Human Services
200 Independence Avenue, S.W.
Washington, D. C. 20201

Dear Dr. Brandt:

At the joint hearing of the Subcommittees on Oversight and Investigations, and Health and the Environment on infant mortality on March 16, 1984, several Members requested additional information for the record. We also require more data to assist the Subcommittee and to clarify the hearing record. To assure that there is no misunderstanding concerning the information requested, a summary of the materials to be provided is as follows:

1. A brief description about and the figure representing the total amount of money being spent by the Public Health Service on the education of pregnant women and teenagers and those who may become pregnant, which is intended to improve pregnancy outcomes including:
    a) the name and citation for each program with which any such expenditure is associated;
    b) the nature of the activities for which the federal government is making the expenditure; and
    c) the expenditure for each program for the fiscal years 1980-1983, the projected expenditures for 1984, and the expenditures anticipated under the President's 1985 budget request.
2. In response to the question from Mr. Leland regarding the amount of federal funding for education to improve pregnancy outcomes you stated, "... I am sorry you are distressed. I don't have that figure, but I think it is important to measure your programs by effectiveness, not just dollars in the first place." Please describe those other "important measures" including:

a) a narrative description of the evaluation mechanisms used to measure the effectiveness of programs listed in the answer to question #1 above;

b) identification of the division or office of the federal government responsible for implementing each evaluation;

c) the results of any such evaluations of programs listed in response to question #1 above for all years beginning with 1980 (if the material is voluminous, please provide summaries and citations rather than the full text until further notice); and

d) a status report on any such evaluations which are in progress in any stage, no matter how preliminary, but not yet completed and available to include in response to #2(c) above.

3. The specific basis for your statement that the Healthy Mothers, Healthy Babies Campaign has been "reasonably successful" as you set out in the following context:

> DR BRANDT: We have worked with the professional associations making this information widely known to them. We have worked through the healthy mothers, healthy babies campaign to get across to women that they should seek prenatal care as early as possible and that they should clearly quit smoking and not drink during pregnancy, so those programs are under way and I think are reasonably successful.

4. A copy of any document, published or released to the public in any way prior to March 16, 1984, in which the projected failure to meet the Surgeon General's objectives for 1990 of 12 deaths per 1000 live births of infants born to blacks was presented.

5. The best and most recent data available on the number of pregnant women per year who deliver without:

   a. any prenatal care;

   b. any prenatal care prior to the third trimester;

   c. any prenatal care prior to the second trimester;

d. prenatal care meeting the frequency standards embodied in the American College of Obstetrics and Gynecology (ACOG) guidelines; and

e. prenatal care meeting the quality guidelines embodied in the ACOG standards.

6. A summary of the content of information the Public Health Service could provide to the Health Care Financing Administration which might enhance the use of Medicaid funds to improve pregnancy outcomes for eligible mothers and babies.

7. Please clarify the position of the Department of Health and Human Services as to:

a) which categories of information, when given to the Committee, should be handled with special care; and

b) which classes of information, if any, are to be restricted from transfer to this Committee.

Please cite legal authority supporting the position of the Department.

8. Citations for any studies which link birth weight to lack of income of the mother or economic depression affecting the household in which the mother lives.

9. The most recent infant mortality rates for Hispanics to compare to the rates for Blacks and Whites which were presented at the hearing.

10. Your view of the contribution the task force on the health status of black Americans, chaired by Dr. Malone, can provide in the area of infant mortality.

11. The source of funds to support the work of the new task force chaired by Dr. Malone.

12. The statistical basis for your statement "still if we project on the base of current data the black infant mortality rate will come down faster than the white."

13. During the hearing you testified that "If you take a group of comparable black women and white women who are college educated, married, receiving total prenatal care from first trimester all the way through, the rate of infant mortality

is still twice as high in black women." Dr. Alexander pointed out in her testimony later in the hearing that there is a significant difference between the rates of low birth weight and infant mortality for the black women you described and those with lower incomes, lower levels of education, who may not be married and who are far less likely to have received total prenatal care from the first trimester all the way through. Which of the interventions referred to in your testimony is reasonably likely to have some beneficial effect on pregnancy outcomes for this latter group of black women?

Please deliver these items on or before the close of business Tuesday, April 17, 1984. We will appreciate your continued cooperation as we move toward the completion of our investigation.

Sincerely,

John D. Dingell
Chairman
Subcommittee on
Oversight and Investigations

JDD:PFdb

[illegible]

U.S. House of Representatives
Subcommittee on Oversight and Investigations
of the
Committee on Energy and Commerce
Washington, D.C. 20515

[illegible]

April 5, 1984

Dr. Carolyne K. Davis
Administrator
Health Care Financing Administration
Department of Health and Human Services
200 Independence Avenue, S. W.
Washington, D. C. 20201

Dear Dr. Davis:

At the joint hearing of the Subcommittees on Oversight and Investigations, and Health and the Environment on infant mortality on March 16, 1984, several Members requested additional information be supplied for the record. We also require more data to assist the Subcommittee and to clarify the hearing record. To assure that there is no misunderstanding about the information requested, a summary of the information to be provided is as follows:

1. In response to a question by Mr. Sikorski on the availability of prenatal care services to Medicaid-eligible women, you responded that "using the combination of services from the two profile groups, it appears there is overall adequacy within states. There may be geographic areas within the states that might have some access problems". You agreed to check data available to your agency on the extent to which there were or were not gaps. Please respond to the following questions and include the data on which you base the answer:
    a. What do the data show with regard to gaps in services available to Medicaid women in need of prenatal services?
    b. If data do not exist or are insufficient to determine where gaps exist and to specify the nature of the services needed, please describe these deficiencies and proposals from your agency and the Public Health Service to remedy them.

c. What were you referring to when you said (in the previously mentioned statement) "combination of services from the two profile groups"? What "combination of services" and what are the "two profile groups"?

2. Medicaid Regulation 42.447.204 requires that Medicaid payments "be sufficient to enlist enough providers so that services under the plans are available ..."

   a. By what standards does HCFA determine the sufficiency of payments for this purpose?

   b. What, if any, levels of payment have been found to be insufficient?

   c. How does HCFA monitor whether state Medicaid programs are in compliance with the regulations? Please summarize the monitoring method used now and any changes contemplated to improve it.

   d. What does your current surveillance show with regard to compliance? Please document.

   e. What methods of enforcement are available to you to ensure compliance? Please identify any instances during your tenure at HCFA where such enforcement methods have been used and indicate the results of the interventions.

3. What numbers and proportion of women and children in poverty are not covered by Medicaid at present, and for each year that you have been Administrator of HCFA? (Because these will be estimates, please show the basis for your calculations and identify the poverty standard used.)

4. You indicated that it would be useful for the Office of Technology Assessment and the Institute of Medicine to study and review the effectiveness of legislative programs which are intended to address infant mortality and the coordination among programs. Please summarize:

   a. The questions about which you intend to seek guidance from the Institute of Medicine and/or the Office of Technology Assessment;

b. Your method and timetable for doing so;

c. The size of HCFA research budget;

d. The HCFA projects related to IMR since 1980 and their results;

e. Any policy changes made or contemplated by HCFA which relate to Medicaid and infant mortality; and

f. Any research on infant mortality contemplated for the near future.

5. In his testimony, Dr. Brandt referred to the success of the Indian Health Service in its prenatal care program. Your own agency has participated in a program in California (the O.B. Access Project funded by HCFA Grant #11-P-97223/9-03 and by Evaluation Grant #11-P-97578/9-03) to increase access to quality prenatal care for Medicaid recipients which has reported some impressive preliminary evidence on the program's reduction of low birth weight and infant mortality rates. You also endorsed EPSDT as a cost-effective preventive program. Dr. Brandt indicated that prenatal care was also cost-effective. What steps do you intend to take, if any, to increase utilization of medical services for women and infants during the first year of life among:

a. Those enrolled in Medicaid but not now utilizing services as recommended by the American College of Obstetricians and Gynecologists and the American College of Pediatrics;

b. Those eligible for Medicaid but neither enrolled nor using services as recommended by the American College of Obstetricians and Gynecologists and the American College of Pediatrics; and

c. Those unable to purchase services as recommended by the American College of Obstetricians and Gynecologists and the American College of Pediatrics for pregnant women and infants but who are currently excluded from Medicaid despite low income level.

6. You indicated that nurse-midwives may enhance the availability of prenatal services to Medicaid-eligible women in areas where there are physician shortages or physicians unwilling to provide services under Medicaid. Please provide a summary of the evidence that nurse-midwives are increasing use by Medicaid-eligible women of prenatal care. Also, describe the role being taken or anticipated by HCFA to support this development.

7. You referred to a 1983 Urban Institute Study on physician supply. Please provide the full citation and a copy of it. Also, please summarize the findings and its implications for access to physician services. If you have taken or intend to take any actions based on this information, please so specify.

8. Volume III of *Securing Access to Health Care*, published by the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research (March, 1983) contains a study by Janet B. Mitchell and Jerry Cromwell, "Access to Private Physicians for Public Patients: Participation in Medicaid and Medicare." This study shows that OB-GYN specialists are among the least likely of all physicians to accept Medicaid patients, and these physicians spend a relatively low proportion of their time with Medicaid patients. Please specify all efforts taken or anticipated to improve the participation of these specialists in serving Medicaid eligible women.

9. According to the testimony of Dr. Brandt and HCFA-funded and other research which we have seen, quality prenatal care can have an impact on reducing low birth weight and infant mortality rates. Given the importance of quality prenatal care please indicate:

    a. To what extent does HCFA or do State Medicaid agencies have data on the content of prenatal care for which Medicaid pays? Please specify the data now available and the steps undertaken or anticipated to fill gaps in the available data.

    b. Why HCFA has not relied upon the ACOG standards as has the PHS?

c. The method and extent to which HCFA now monitors the quality of services financed by Medicaid?

d. The findings as to any deficiencies identified.

e. What plans have been made or are anticiptaed to improve the monitoring of quality and to improve quality where deficiencies have been or may be identified?

10. Please describe how you intend to see that HCFA and state Medicaid programs take advantage of Public Health Service research findings and service delivery experience which can contribute to the more effective delivery of Medicaid services in the prevention of infant mortality.

11. Please summarize and provide the data showing the number and proportion of Medicaid-eligible women who deliver each year without:

a. Any prenatal care;

b. Any prenatal care prior to the third trimester;

c. Any prenatal care prior to the second trimester;

d. Prenatal care meeting the frequency standards embodied in the ACOG guidelines; and

e. Prenatal care meeting the quality standards embodied in the ACOG guidelines.

12. Please provide the data for 1982 and 1983 showing:

a. The number of families eligible for Medicaid each year indicating the magnitude of the increase or reduction;

b. The number of families enrolled in the Medicaid program each year indicating the magnitude of the increase or reduction;

c. The number of women of childbearing age eligible for Medicaid each year indicating the magnitude of the increase or reduction;

d. The number of women of childbearing age enrolled in the Medicaid program each year indicating the magnitude of the increase or reduction;

e. The number of children eligible for Medicaid each year indicating the magnitude of the increase or reduction; and

f. The number of children enrolled in the Medicaid program each year indicating the magnitude of the increase or reduction.

Please deliver this information on or before the close of business, Tuesday, April 17, 1984 to the Subcommittee offices at 2323 Rayburn House Office Building. We will appreciate your continued cooperation as we move toward completion of our investigation.

Sincerely,

John D. Dingell
Chairman
Subcommittee on
Oversight and Investigations

JDD:DLcm

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Office of the Assistant Secretary
for Health
Washington DC 20201

APR 17 1984

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Subcommittee on
Oversight and Investigations

The Honorable John D. Dingell
Chairman
Subcommittee on Oversight and Investigations
Committee on Energy and Commerce
House of Representatives
Washington, D. C. 20515

Dear Mr. Dingell:

Enclosed are additional materials for the hearing record of March 16 which you requested on April 5.

Sincerely,

James F. Dickson /for
Edward N. Brandt, Jr., M.D
Assistant Secretary for Health

Enclosures

(Note: Certain attachments referred to have been retained in subcommittee files.)

Question 1: A brief description about and the figure representing the total amount of money being spent by the Public Health Service on the education of pregnant women and teenagers and those who may become pregnant, which is intended to improve pregnancy outcomes including:

(a) the name and citation for each program with which any such expenditure is associated;

(b) the nature of the activities for which the federal government is making the expenditure; and

(c) the expenditure for each program for the fiscal years 1980-1983, the projected expenditures for 1984, and the expenditures anticipated under the President's 1985 budget request.

Answer:

Education is a vital component of prenatal care, and, therefore, is an integral part of Public Health Service programs for pregnant women and women who may become pregnant. However, education is rarely separated from these services. Expenditure data are not usually available for that specific portion of a project devoted to education. The following Maternal and Child Health programs in the Health Resources and Services Administration (HRSA) include education and counseling as essential parts of services.

Infant Mortality/Infant Health SPRANS Projects

The Subcommittee on Oversight and Investigations previously requested information on the 15% set-aside (SPRANS) projects of the MCH block relevant to infant mortality/infant health. A description of several project areas, together with a project listing for each of those areas, was provided to the Chairman.

The significant projects, which were described in the previous communication, having educational components follow:

- Improved Pregnancy Outcome (IPO) Projects These projects are designed to improve maternal care and pregnancy outcome in selected States which have a high incidence of infant mortality and teenage pregnancy. The projects are designed to help build effective systems of preventive, primary and referral care for mothers and infants by improving the planning, promoting, and coordinating of perinatal health services at the State level. Funding was $13.6 million in FY 1980, $11.1 million in FY 1981, $4.3 million in 1982, $2.7 million in FY 1983, and $1 million in FY 1984.

- Maternal/Perinatal Health Projects These projects are designed to provide a variety of approaches in health care delivery which can be utilized to improve maternal and perinatal health. These approaches focus on such activities as preventing preterm labor, reducing low birth weight, promoting breastfeeding, and increasing community-wide awareness of the importance of early and continuous pre-natal care.

- Genetics Program There are currently 28 States providing genetic services to a Statewide catchment area. These services include professional and patient education, screening, diagnosis, counseling and follow-up for anyone seeking care for, or who is suspected of having a genetic disorder.

- Genetics Program Sickle Cell Counseling Two projects have been awarded for multi-State programs for the eduction, screening and counseling of couples at risk of having an infant with Sickle Cell Disease or other hemoglobinopathies.

- Continuing Education in Genetics Four continuing education awards were made to update the skills and knowledge of genetic services by primary care providers (particularly public health nurses and social workers).

The Family Planning and Adolescent Family Life programs in the Office of Population Affairs/OASH also provide education and counseling.

- Family Planning Under title X of the Public Health Service Act, family planning projects offer a broad range or family planning services, including education and counseling. It is impossible to separate out the funding for education. The total appropriation for Title X family planning services was $162.0 million in FY 1980, $161.7 million in FY 1981, $124.2 million in FY 1982, $124.1 million in FY 1983, and $140.0 million in FY 1984. The President's 1985 Budget request includes Family Planning in the Primary Care Block Grant.

- Adolescent Family Life (AFL) Program The AFL Program (title XX, PHS Act) funds model demonstration projects which offer prevention services to non-pregnant teens and their families, and care services to pregnant and parenting teens, their partners, and family members. Services that are provided relating to education include:

  (a) pregnancy testing and maternity counseling;

  (b) adoption counseling and referral services which present adoption as an option for pregnant adolescents;

  (c) nutrition information and counseling;

  (d) educational services relating to family life and problems associated with adolescent premarital sexual relations;

  (e) appropriate educational and vocational services and referral to such services;

  (f) counseling for the immediate and extended family members of the eligible person;

  There is no breakdown of the funds spent solely for education of pregnant teenagers. Expenditures for the AFL program have been $10.0 million in FY 1982, $12.1 million in FY 1983, $14.8 million in FY 1984. For FY 1985, the requested level is $13.1 million.

Other PHS education activities include

- Alcohol and Pregnancy Education Campaign/National Institute on Alcohol Abuse and Alcoholism: A mass media/community intervention public education campaign was initiated in 1982 to warn women of childbearing age of the risks associated with the consumption of alcohol during pregnancy. Three TV public service announcements, posters, pamphlets, and brochures were developed and disseminated through State Alcohol Authorities for implementation of the campaign at the State and local level. An evaluation of the campaign demonstrated success in reaching women with these warnings. More than $10 million worth of air time was donated by the private sector for broadcast of these messages. Twenty percent of the public service messages were aired during prime time viewing. The messages contained in these broadcasts and print materials are still relevant and can be used to supplement other fetal alcohol syndrome-related activities. Campaign funding was $400,00 in FY 1982.

  In addition, a series of publications on alcohol use during pregnancy are actively promoted through States for use with limited English-speaking persons, those with limited levels of literacy, and teenagers. Funding for this effort in FY 1982-83 was $90,000; the effort will be continued and strengthened in FY 1984-85.

- Healthy Mothers, Healthy Babies Coalition/Office of Public Affairs/OASH: The Public Health Service was one of the founders, and is the major coordinator of the Coaltion, an informal association of more than 60 professional, voluntary, and government organizations with a common interest in prenatal and infant health. (A listing of national members is attached). The purpose of the Coalition is to foster public education efforts for pregnant women through collaborative activities and sharing of information and resources. In response to needs identified by national Coalition members, the Public Health Service has developed a number of educational materials including directories of prenatal education materials and programs, radio public service announcements, newspaper columns, exhibits, and a series of posters and information cards for low income women. Two market research studies have been completed to support the development of additional educational programs for low income women by the Coalition. Television and other new materials will be distributed primarily through State Coalition chapters now being formed. Funding for FY 1982 was $150,000, for FY 1983, $60,000 and FY 1984, $95,000.

- Prenatal Care Publication The Maternal and Child Health Program, HRSA, has a long history of development and publication of educational and informational materials. A listing of current publications available through its clearinghouse is attached. Many of these publications deal directly or indirectly with information bearing on pregnancy, prenatal care, infant care and the like. Perhaps most directly significant is the publication Prenatal Care. Prenatal Care, one of the most popular publications distributed by the Government Printing Office (GPO), is intended to provide women current information about the process of pregnancy, childbirth, and the newborn and about care related to these critical processes in stages of development. An initial distribution of over 40,000 copies of the latest edition to State MCH agencies is expected to be completed in May. A Spanish language edition is planned for later this year. One hundred thousand copies will be available through the National Maternal and Child Health Clearinghouse, and will be available through purchase from the GPO. In addition, a number of State and local agencies and several commercial firms have requested and have been provided use of the printer's negative to print their own copies.

- Other Publications for Pregnant Women These include public/patient education materials for distribution primarily through physicians' offices and clinics. Titles include Pregnancy Basis, Facts About Premature Birth, Facts About Down Syndrome for Women over 35, Caesarean Childbirth, Little Babies: Born Too Soon, Born Too Small, Facts About Pregnancy and Smoking. Funding for FY 1980-85 for such publications averages $60,000 per year.

Question 2: In response to the question from Mr. Leland regarding the amount of federal funding for education to improve pregnancy outcomes you stated, "... I am sorry you are distressed. I don't have that figure, but I think it is important to measure your programs by effectiveness, not just dollars in the first place." Please describe those other "important measures" including:

(a) a narrative description of the evaluation mechanisms used to measure the effectiveness of programs listed in the answer to question #1 above;

(b) identification of the division or office of the federal government responsible for implementing each evaluation;

(c) the results of any such evaluations of programs listed in response to question #1 above for all years beginning with 1980 (if the material is voluminous, please provide summaries and citations rather than the full text until further notice); and

(d) a status report on any such evaluations which are in progress in any stage, no matter how preliminary, but not yet completed and available to include in response to #2(c) above.

Answer:

o Maternal and Child Health/Improved Pregnancy Outcome
We believe one measure of the effectiveness of our programs is the continued reduction in infant mortality rates. Evaluation of a multi-faceted program is extremely complex, however, the continued improvement in outcome should suggest a positive effect of our education activities.

There have been several evaluation studies completed prior to 1980 which have focused on a variety of maternal and child health services and programs. These studies can be provided to the Subcommittee upon request.

Since 1980, a major study has been completed dealing with improved pregnancy outcomes. This study, entitled "Measuring the Impact of Community Health Centers on Pregnancy Outcome" was completed in October 1982. The evaluation, conducted by Abt Associates (Contract No. 240-81-0041), was conceived as a small scale study which would use detailed data in one urban area to examine the impact of the Community Health Center (CHC) program, HRSA, on pregnancy outcomes.

Baltimore was selected as the site of the study because large sections of the city are designated medically underserved areas with six CHCs serving these sections. In addition, Baltimore CHCs have received funds to implement a sophisticated prenatal care data collection system called CHIPS (Community Health Information Prenatal System). The basic study design was to compare CHC users with non-users to assess the nature of the impact of the CHCs on pregnancy outcome.

The findings of the numerous analyses performed indicate that when comparing CHCs with other institutional care givers (i.e., health departments and hospital clinics) the CHCs did not perform either better or worse. That is to say that within the group of women studied (black inner city women) and controlling for medical obstetrical factors, it appeared that care at CHCs results in outcomes equal to those achieved for similar women who used other institutional sources of care. Thus, the major finding involved the determination that care in CHCs was equal to that of other institutional care givers. Although cost containment issues were not part of the study, it was observed that CHCs were providing care with comparable outcomes at lower cost.

There are two other evaluation studies dealing with maternal and child health services which are currently being carried out by private contractors. The first, entitled "An Evaluation of the Dissemination and Adoption of Findings Generated by a Study Supported by the MCH Research Grants Program," is being conducted by the Human Interaction Research Institute (Contract No. 240-83-0107). The study is to culminate in the development of a manual containing a systematic exposition of what has to be done to effectively implement findings from projects supported by the MCH Research Grants Program.

The Office of Planning, Evaluation, and Legislation (OPEL) is the organization responsible for the design and monitoring of evaluation studies on maternal and child health services and programs. The OPEL maintains the responsibility for initial evaluation study design through the development of requests for contracts. These studies are then carried out by private sector organizations who are awarded evaluation contracts in accordance with competitive bidding procedures.

Evaluations conducted by other programs include:

- Family Planning/Adolescent Family Life-Office of Population Affairs/OASH: Several evaluations of the effectiveness of organized family planning services have been conducted. Notable publications from these evaluation studies are:

  M. Chamie and S.K. Henshaw, "The Cost and Benefits of Government Expenditures for Family Planning Programs, "Family Planning Perspectives, 13: 117, 1981.

  J. D. Forest, A.I. Hermalin and S.K. Henshaw, "The Impact of Family Planning Clinic Programs on Adolescent Pregnancy, "Family Planning Perspectives, 13: 109, 1981.

  P. Cutright and F.S. Jaffe, Impact of Family Planning Programs on Fertility: The U.S. Experience, Praeger, New York, 1977.

  The Public Health Service was the primary funder of these studies; copies are available on request.

  Since funds were first appropriated in September 1982, the AFL projects, which are three-to-five-year model demonstrations, have only been in operation for eighteen months. Evaluation of these projects will be completed at the end of the project's demonstration period.

- The National Institute on Alcohol Abuse and Alcoholism/Alcohol, Drug Abuse and Mental Health Administration plans to evaluate the utilization of research findings on fetal alcohol syndrome to the field. The study will include OB/GYN clinics, primary health care settings, and alcohol, drug abuse, and mental health treatment programs. In addition to determining the current state-of-practice with regard to fetal alcohol syndrome it is anticipated that gaps and barriers in the information-effective practice chain will be identified and recommendations made for future targeted dissemination strategies. Funding will be $325,000 (est.) in FY 1984.

In addition to formal evaluation studies, it is important to recognize trends that indicate that the health of pregnant women and their babies is improving. Generally it is impossible to isolate which factor in society ranging from social acceptance to research advances is responsible for such improvements. However, these trends provide indirect evidence of some positive effects. In recent years, there has been some decline in the number of mentally retarded children, for example. This decline may be due in part to increased information about the risk of Down syndrome babies being born to women over 35 years of age. Widespread screening programs for PKU and hypothyroidism have also played an important role. While certainly the major credit for these advances goes to the research findings, the dissemination of information about these advances both to professional and lay audiences plays a role in the spread and acceptance of these programs.

Question: 3 The specific basis for your statement that the Healthy Mothers, Healthy Babies Campaign has been "reasonably successful" as you set out in the following context:

> DR. BRANDT: We have worked with the professional associations making this information widely known to them. We have worked through the healthy mothers, healthy babies campaign to get across to women that they should seek prenatal care as early as possible and that they should clearly quit smoking and not drink during pregnancy, so those programs are under way, and I think are reasonably successful.

Answer:

The Healthy Mothers, Healthy Babies Coalition, and the educational campaigns it conducts, have been the result of enthusiasm, diligent efforts, and a degree of cooperation between national voluntary, professional and governmental organizations unusual in the maternal and health--or any other--area of health. More than 60 organizations representing disparate audiences and points of view have joined forces in a sustained (until 1990) commitment to improve educational programs for pregnant women and women who may become pregnant. Indicators of success for these programs undertaken in the last two years include: very positive reception to radio spots, produced by the Public Health Service and distributed by local chapters of the March of Dimes (chapters reported greater demand for these spots than for any previously offered, and the March of Dimes has reissued them two additional times to meet the demand); posters and cards for low income clinics, produced by the Public Health Service jointly with the American College of Obstetrics and Gynecology, the March of Dimes, the Licensed Beverage Information Council, Gerber Foods, and the American Council of Drug Education (in addition to the series being almost immediately "sold out" to low income clinics, the volume of positive letters received from this project by the PHS far exceeds normal response); "Coalition-building" materials produced by the Public Health Service with the Departments of Agriculture and Education, the Alliance for Perinatal Research and Services, and the American College of Obstetrics and Gynecology to encourage the establishment of State Coalition chapters (in cooperation with the National Governors Association support for a Healthy Mothers, Healthy Babies Month in each State); and the level of activity within the States to further national coalition efforts (more than 1500 State contacts are now working with the National Coalition).

Question 4: A copy of any document, published or released to the public in any way prior to March 16, 1984, in which the projected failure to meet the Surgeon General's objectives for 1990 of 12 deaths per 1000 live births of infants born to blacks was presented.

Answer:

The documents entitled--

- Statistical Update on Progress
  - Pregnancy and Infant Health Objectives
  - Progress Review - March 29, 1983
- Highlights of Program Activities
  - Pregnancy and Infant Health Objectives
  - Progress Review - March 1983

were discussed at a department-wide meeting on the Pregnancy and Infant Health Objectives on March 29, 1983 and subsequently disseminated to Regional Program Consultants for Maternal and Child Health (MCH) and to all the State MCH Program Directors. In addition, the documents were distributed to the more than 60 national professional, voluntary and governmental organizations and agencies which comprise the Healthy Mothers/Healthy Babies Coalition. The data presented for Objective 4 (Rates of Infant Mortality for Subgroups) indicated that it would be difficult to achieve the target for blacks. The recommendation was to maintain the target as established and continue efforts to reduce infant mortality among black infants.

Following the progress review, an article in Public Health Reports in March-April 1984 (attached) points up the difficulty in achieving the projected rates and the substantial challenge facing the Nation to accomplish the goal.

Question 5: The best and most recent data available on the number of pregnant women per year who deliver without:

(a) any prenatal care;

(b) any prenatal care prior to third trimester;

(c) any prenatal care prior to the second trimester; and

(d) prenatal care meeting the frequency standards embodied in the American College of Obstetrics and Gynecology (ACOG) guidelines.

(e) prenatal care meeting the quality guidelines embodied in the ACOG standards.

Answer:

(a) Based on data from 1981 live birth certificates, there were nearly 50,000 births for which the mother had no prenatal care (see Table 1). This represents 1.4 percent of all live births. Among white live births 1.1 percent had no prenatal care while among black live births 2.8 percent had no prenatal care.

(b) Including those with no care at all, there were 188,000 live births with no care prior to the 3rd trimester. This representss 5.2 percent of all live births. The proportion for whites was 4.3 percent and for blacks 9.0 percent

(c) Nearly 860,000 live births had no prenatal care prior to the 2nd trimester. This represented 23.7 percent of all live births. The corresponding proportion for whites was 20.6 percent compared to 37.6 percent for blacks.

(d) There are no national data available which precisely relate to ACOG guidelines. However, we were able to prepare a special preliminary tabulation of 1980 birth certificate data to approximate these guidelines based on the month prenatal care began, total number of prenatal visits, and gestation (see Table 2). Unfortunately, 31 percent of the birth certificates did not have available all the information needed to classify prenatal care in this way (California and New Mexico do not report number of prenatal visits on their births certificates). Of the live births for which data were available, 66.5 percent received "adequate" prenatal care (70.3 percent for whites versus 48.8 percent for blacks). At the other extreme, 7.5 percent of live births had inadequate care (6.0 percent among whites versus 14.6 percent among blacks).

(e) The collection of vital statistics is a State responsibility. The only information on birth certificates regarding prenatal care is when prenatal care began and the number of prenatal visits. Assessing quality of care is a difficult undertaking.

We subscribe to the ACOG standards and have assisted with their establishment and encourage all providers of maternal services to subscribe to them as well. Indeed these standards have been promulgated by federally run programs such as CHCs and Title V clinics. However, professional standards are set by the professions themselves and the States through licensure laws.

Table 1. Live births by month of pregnancy prenatal care began: United States 1981

	Total	Month of pregnancy prenatal care began			
		1-3	4-6	7-9	No prenatal care
	Estimated number[1] of live births				
Total.................	3,629,238	2,769,875	671,062	138,927	49,374
White...............	2,908,669	2,308,989	475,249	93,798	30,633
Black...............	587,797	366,957	167,470	36,656	16,714
	Percent distribution				
Total.................	100.0	76.3	18.5	3.8	1.4
White...............	100.0	79.4	16.3	3.2	1.1
Black...............	100.0	62.4	28.5	6.2	2.8

[1] Births with month prenatal care began not stated (2.5 percent of total, 2.3 percent of white and 3.5 percent of black births) are allocated according to the distribution of those with known month.

SOURCE: National Center for Health Statistics: Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics.

Table 2. Adequacy of prenatal care[1] among mothers with live births: United States, 1980

Prenatal care index	Race		
	All races	White	Black
	Percent of live births[2]		
Adequate..........................	66.5	70.3	48.8
Intermediate....................	25.9	23.7	36.6
Inadequate......................	7.5	6.0	14.6

[1] Adequacy of prenatal care is measured using an index which takes into account gestation, number of prenatal visits, and month prenatal care began. Details of the index are described in the report: Kessner DM, et. al.: Infant Death, An Analysis by Maternal Risk and Health Care. Institute of Medicine, National Academy of Sciences, Washington, D.C., 1973.

[2] The table excludes 31 percent of live births because one or more of the data items needed to calculate the prenatal care index are missing. Births occurring in certain States are excluded because of missing data. California and New Mexico do not report number of prenatal visits; and Connecticut and New Mexico do not report gestation.

SOURCE: National Center for Health Statistics: Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics.

NOTE: These data are preliminary and subject to revision.

Question 6: A summary of the content of information the Public Health Service could provide to the Health Care Financing Administration which might enhance the use of Medicaid funds to improve pregnancy outcomes for eligible mothers and babies.

Answer:

The PHS and HCFA have collaborated for several years on mechanisms to enhance the use of Medicaid funds to improve pregnancy outcome for eligible mothers and babies. Considerable effort has been devoted to implementing interagency agreements and providing technical assistance to the State Health Departments and Medicaid agencies. PHS and HCFA are jointly developing information for use by State agencies in the delivery of services related to pregnancy and infant health.

An area which will be expanded is data and information. PHS and HCFA have discussed the issuance of guidance on the positive impact of early prenatal care, the early identification of high-risk pregnant women and infants, standards of care, and the comprehensiveness of health care services.

The ongoing collaborative effort between HCFA and PHS, with pregnancy and infant health as a mutual high priority, provides a vehicle to improve pregnancy outcome for the Nation.

Question 7: Please clarify the position of the Department of Health and Human Services as to:

(a) Which categories of information, when give to the committee, should be handled with special care; and

(b) Which classes of information, if any, are to be restricted from transfer to this Committee.

Please cite legal authorities supporting the position of the Department.

Answer:

(a) It would be impossible to categorize in advance all the types of information that the Department might request the Committee to handle with special care. Any information exempt from the disclosure requirements of the Freedom of Information Act may be sufficiently confidential to warrant a request by the Department that the information not be further disseminated by the Committee. Such information might include, but would not be limited to, information the disclosure of which would constitute an unwarranted invasion of personal privacy, trade secret information, attorney-client information, and inter-or intra-agency correspondence.

(b) A number of statutes restrict the Department's ability to release certain categories of information and provide an exception from those restrictions in the case of requests from Congressional Committees. Whether or not release of the information covered by those statutes would be permitted in any particular case would require a complete analysis of the circumstances surrounding the information and the Committee's request. Those statutes are:

Food, Drug, and Cosmetic Act, section 301(j),
21 U.S.C. 331(j)

Public Health Service Act, section 303(a),
42 U.S.C. 242a(a)--Mental Health Research

Public Health Service Act, section 308(d),
42 U.S.C. 242m(d)--Health Research and
Statistical Activities

Comprehensive Alcohol Abuse and Alcoholism
Prevention, Treatment, and Rehabilitation
Act of 1970, section 333, 42 U.S.C. 4582

Drug Abuse Prevention, Treatment and
Rehabilitation Act, section 408, 21 U.S.C. 1175

18 U.S.C. 1905--Trade Secrets

OMB Circular A-10 requires executive agencies to withhold all budgetary information prior to transmittal to the Congress by the President of the budget to which it pertains. Under OMB Circular A-10, budgetary information includes, but is not limited to, agency budget submissions, requests, recom-mendations, supporting material and similar communications.

Question 8: Citations for any studies which link birth weight to lack of income of the mother or economic depression affecting the household in which the mother lives.

Answer:

Lewis R, Charles M, and Patwary KM. Relationships between birth weight and selected social, environmental and medical care factors. American Journal of Public Health 63 (11):973-981, November 1973.

Gortmaker SL. Poverty and infant mortality in thw United States. American Sociological Review 44:280-297, April 1979.

Struening EL, Rabkin JG, Cohen P, Raabe G, Muhlin GL, and Cohen J. Family, ethnic and economic indicators of low birth weight and infant mortality: A social area analysis. Annals New York Academy of Science 218:87-107, 1973.

Garn SM, Shaw HA, McCabe KD. Effects of socioeconomic status and race on weight-defined and gestational prematurity in the United States, in DM Reed, FJ Stanley (eds): The Epidemiology of Prematurity. Baltimore-Munich. Urban and Schwarzenberg, 1977. pp 127-143.

Shapiro S, Schlesinger ER, and Nesbitt, Jr. REL. Infant, perinatal, maternal and childhood mortality in the United States. Boston. Harvard University Press, 1968.

Brooks CH. Path analyses of socioeconomic correlates of county infant mortality rates. Int. J. Health Serv. 5:499, 1955.

Ashford JR, et. al. Analysis of variations in perinatal mortality amongst local authorities in England and Wales. Int. J. Epid. 2:31, 1973.

Meyer AJ, Marks RV. Differentials in infant mortality by race, economic level and cause of death for Detroit: 1940 and 1950. Hum. Bio. 26:143, 1954.

Shapiro S, et. al. Prematurity and perinatal mortality in New York City and HIP. American Journal of Public Health 48:170, 1958 and 50:1304, 1960.

Friedman JJ. Sturctural constraints on community action: the case of infant mortality rates. Social Problems, Fall 1973.

Shah FK and Abbey H. Effects of some factors on neonatal and postneonatal mortality. MMFQ 49:33, 1971.

Pakter J and Nelson F. Factors in the unprecedented decline in infant mortality in New York City. Bull. N.Y. Acad. Med. 50:839, 1974.

Brenner MH. Fetal, infant, and maternal mortality during periods of economic instability. Int. J. of Health Services 3(2):145-159, 1973.

Kehrer BH and Wolin CM. Impact of income maintenance on low birth weight: Evidence from the Gary Experiment. The J. of Human Resources XIV(4):434-462, Fall 1979.

Brooks CH. Infant mortality in SMSAs before Medicaid: Test of a causal model. Health Services Research pp. 3-15, Spring 1978.

Anderson JG. Constructing causal models: Problems of units of analysis, aggregation, and specification. Health Services Research pp. 50-60, Spring 1978.

Brooks CH. Reply to "Constructing causal models: Problems of units of analysis, aggregation, and specification." Health Services Research pp. 305-325, Fall 1978.

Bross DS and Shapiro S. Direct and indirect associations of five factors with infant mortality. Am. J. of Epidemiology 115(1):78-91, January 1982.

Stockwell EG and Wicks JW. Socioeconomic differentials in infant mortality. Final Report, Grant MC-R-390452-01-0. Available through National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia.

Question 9: The most recent infant mortality rates for Hispanics to compare to the rates for Blacks and Whites which were presented at the hearing.

Answer:

National data on infant mortality rates for Hispanics are unavailable since many States do not code ethnicity on the birth or death certificate. However, Table 3 (attached) shows the percent low birth weight by Hispanic origin of mother for the 22 States which reported this information in 1981.

It is of interest to note that the incidence of low birth weight for Mexicans, Cubans, Central and South Americans is about the same as that for the white population. Only Puerto Ricans and "other and unknown Hispanics" have a higher incidence of low birth weight than whites. However, low birth weight incidence among Puerto Ricans is still substantially lower than the incidence of low birth weight among blacks.

We were able to obtain infant mortality rates for Hispanics in the two States with the largest Hispanic populations, California and Texas (see Table 4 attached). These data show a 10 percent excess infant mortality rate among Hispanics in California and a 20 percent excess among Hispanics in Texas. Once again, however, both Hispanic rates were substantially lower than the corresponding rates for black infants.

Table 3. Percent of live births below 2500 grams by Hispanic origin of mother, and by race of child for mothers of non-Hispanic origin: Total of 22 reporting States, 1981

All births	6.8
All Hispanic origin	6.1
Mexican	5.6
Puerto Rican	9.0
Cuban	5.8
Central and South American	5.7
Other and unknown Hispanic	7.0
All Non-Hispanic	7.0
White	5.6
Black	12.6

SOURCE: Division of Vital Statistics, National Center for Health Statistics.

Table 4. Infant mortality rates for Hispanics and Non-Hispanics in California and Texas[1]

	California[2]			Texas[3]		
	1980	1981	1982	1980	1981	1982
	Infant deaths per 1000 live births					
White, non-Spanish surname................	9.5	8.9	---	10.6	10.0	9.2
White, Spanish surname................	10.2	9.8	---	11.8	11.8	11.1
Black....................	19.7	17.2	---	---	---	---
Nonwhite.................	---	---	---	19.0	17.6	16.0

[1] California is first in the Nation and Texas is second in the Nation for number of Hispanic births.

[2] The infant mortality rate is calculated using a birth cohort file consisting of linked birth and death records, that is, an infant's birth certificate is matched with that same infant's death certificate. This match can be made provided an infant born in California to resident parents also dies there. Race of the infant is determined from the birth certificate. Spanish surname is determined by the infant's surname as listed on the birth certificate.

[3] The infant mortality rate is calculated in the usual manner using unlinked birth and death records. For live births, Spanish surname is determined by the infant's or mother's surname on the birth certificate; for deaths, Spanish surname is determined by the infant's surname on the death certificate.

SOURCE: Personal communication with Ms. Michiko Tashire, Center for Health Statistics, California State Department of Health Services and Mr. William Barrington, Director, Division of Statistical Services, Bureau of Vital Statistics, Texas Department of Health.

Question 10: Your view of the contribution the task force on the health status of black Americans, chaired by Dr. Malone, can provide in the area of infant mortality.

Answer:

As emphasized by Secretary Heckler in establishing the Task Force on Black and Minority Health, the dramatic and tragically high rate of infant mortality among minorities merits special attention. The Task Force, created in response to this and other persistent disparities between black and white health status, is unique as a coordinated Department-wide approach to minority health needs. At the initial meeting of the Task Force on April 11, 1984, Secretary Heckler charged the members to review all available data on health status, to assess the full range of DHHS resources related to minority health, and to make recommendations for new approaches through which Federal programs might improve health among minority Americans.

In the specific area of infant mortality, the Task Force can contribute by recommending innovative ways of channeling Departmental resources to have an impact on improving the perinatal health of minorities. To accomplish this, the Task Force will examine data from other and more specialized sources than reported in *Health, U.S., 1983*, including regional surveys and detailed demographic profiles, which might suggest areas of greatest need and potential change. Research being conducted or supported on infant mortality will be reviewed by the Task Force and recommendations should be forthcoming for the most promising areas. It is also anticipated that the Task Force will obtain and consider the views of the external community concerned with infant health through workshops, regional hearings, and consultation with minority leaders and professionals. These efforts should serve to accelerate progress toward the goal of increasing the proportion of healthy babies born to black and other minority mothers.

Question 11: The source of funds to support the work of the new task force chaired by Dr. Malone.

Answer:

The Task Force on Black and Minority Health, chaired by Dr. Malone, will be funded initially from already existing Departmental appropriations for fiscal year 1984 through an assessment of participating DHHS components. A similar mechanism is anticipated for fiscal year 1985.

Question 12: The statistical basis for your statement "still if we project on the base of current data the black infant mortality rate will come down faster than the white."

Answer:

My statement was intended to simplify a complex situation. In 1981, the last year for which race-specific data is available, the infant mortality rates for whites was 10.5 and our projection for 1990 is 6.8, a decrease of 3.7 deaths/1000 live births. The comparable data for blacks is 20.0 in 1981 and 13.5 in 1990, a drop of 6.5 deaths per 1000 live births. Hence, on the average over this 9 year period, there will be a decrease of 0.72 deaths/year for blacks compared to 0.41 deaths/year for whites. On the other hand, the logarithmic model used for these projections based upon the 1970-81 data indicates a yearly decrease of 5.0 percent for whites and a 4.2 percent for blacks.

Question 13: During the hearing you testified that "If you take a group of comparable black women and white women who are college educated, married, receiving total prenatal care from first trimester all the way through, the rate of infant mortality is still twice as high in black women." Dr. Alexander pointed out in her testimony later in the hearing that there is a significant difference between the rates of low birth weight and infant mortality for the black women you described and those with lower incomes, lower levels of education, who may not be married and who are far less likely to have received total prenatal care from the first trimester all the way through. Which of the interventions referred to in your testimony is reasonably likely to have some beneficial effect on pregnancy outcomes for this latter group of black women?

Answer:

First, the rate I was discussing was low birth weight not infant mortality rate. What I said in my written testimony was that based on an analysis of 1981 birth certificate data, the rate of low birth weight among the lowest risk group--college educated married women, age 25-29, having their second child, who began prenatal care in the first trimester--was estimated to be 2.3 for whites and 5.6 for blacks. This differential continues for the group of women mentioned by Dr. Alexander. For example, the rates of low birth weight for those women not completing high school, unmarried, with no prenatal care, either young or old with high or low parity were 9.6 for whites and 14.6 for blacks. I would expect that the full range of interventions and activities I recounted in my testimony are likely to be of some benefit in reducing low birth weight. I would repeat, however, that we need more investigation into the whole area of prevention of low birth weight in order to understand how to target our efforts to resolve the black/white disparity.

Pregnancy and Infant Health: Progress Toward the 1990 Objectives

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Synopsis

Assuring all infants a healthy start in life and enhancing the health of their mothers are goals of the Public Health Service's health promotion and disease prevention initiative. The 13 priority objectives selected for the pregnancy and infant health area of the initiative focus on lowering infant, neonatal, and perinatal mortality rates, reducing the number of low-birth-weight infants, improving the health care of pregnant women and infants through regionalized perinatal care systems and comprehensive primary care services, encouraging early prenatal care and healthy lifestyles in pregnancy, and targeting the factors and populations associated with health risk.

Although considerable progress has been made in this century in lowering the infant mortality rate, infants continue to die at a higher rate than members of any other age category under 60 years, and black infants die at almost twice the rate of white infants. To lower these high mortality rates, the private, public, and voluntary sectors have cooperated in new approaches to perinatal and infant health that have already produced some encouraging results. Recent data, for example, indicate that the priority objective of universal screening of newborns for treatable metabolic disorders has already been achieved and that the target for neonatal and infant mortality rates could be reached earlier than 1990. Substantial challenges, however, lie ahead if the current racial and ethnic differentials evident in the rates for prenatal care registration, low-birth-weight babies, and maternal and infant mortality are to be eliminated.

THE UNITED STATES HAS MADE GREAT ADVANCES since the turn of the century in improving maternal and child health. The U.S. infant mortality rate has declined from more than 100 infant deaths per 1,000 live births in the early 1900s to 12.6 per 1,000 in 1980 (*1,2*). During the same period, the rate of maternal deaths due to complications of pregnancy, childbirth, and the puerperium fell from more than 700 per 100,000 live births to 9.2 per 100,000, a remarkable decrease (*1,2*).

There is increasing recognition that positive health behavior and the avoidance of hazards at the beginning of life can lead to lifelong benefits for mothers, children, families, and the nation. Through application of the knowledge and technology already available, a large proportion of the most burdensome maternal and child health problems can be prevented or ameliorated. We know, however, that significant gaps continue to exist between what is known and what is practiced in all sectors of the health care system. Preventive health care services and health promotion activities still are not as accessible nor as broadly used as they should be.

Because of these circumstances, pregnancy and infant health is 1 of the 15 priority areas that have been identified for the Public Health Service's health promotion and disease prevention initiative (*3*). There are at least 52 million women of reproductive age in the United States today. In 1980, women in this age group gave birth to 3.6 million live and more than 32,000 stillborn infants (*4* and unpublished data from the National Center for Health Statistics). Prenatal care was begun in the first trimester of pregnancy by 79.3 percent of the white mothers and 62.7 percent of the black mothers, but more than 46,000 mothers received no prenatal care (*4*). Three hundred thirty-four women died from complications of pregnancy, childbirth, and the puerperium (*2*). Of the 3.6 million infants born alive in 1980, more than 45,000 died before their first birthday; two-thirds of these deaths occurred during the neonatal period (from birth up to but not including the 28th day of life) (*2*).

Major causes of death within the neonatal period include congenital anomalies, respiratory distress syndrome, short gestation and low birth weight, and maternal complications of pregnancy. Deaths in the postneonatal period (from 28 days of life up to but not including 1 year of age) are due to congenital anomalies, sudden infant death syndrome, accidents, and infectious diseases (2,5). Infants die at a far greater rate than members of any other age category up to 60 years, and the rate for black infants is almost twice that for white infants (2).

Birth weight is a significant predictor of infant mortality and morbidity such as developmental delays and congenital anomalies. Lower birth weights are associated with higher risks. In 1980, there were more than 242,000 low-birth-weight babies (less than 2,500 gm), of whom more than 40,000 were of very low birth weight (less than 1,500 gm). Proportions of low-birth-weight infants are higher among blacks, young teenagers, and women in their forties (4). Smoking cigarettes and drinking alcohol during pregnancy contribute significantly to the incidence of low-birth-weight infants.

Progress Toward 1990 Objectives

Based on identified problems and needs, 13 objectives were selected as the national priority in the pregnancy and infant health initiative (see box). Note that accomplishment of these objectives demands efforts extending beyond federally sponsored programs. The private sector of medicine and of the other health professions, business and industry, educational institutions, and the public are all involved. The basic approach is to assist States and communities by:

- Helping identify at-risk groups and underserved areas
- Targeting resources and specialized services
- Increasing professional consultation and technical assistance
- Establishing an information base through research and epidemiologic studies

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1990 Priority Objectives for Pregnancy and Infant Health

Improved health status

1. By 1990, the national infant mortality rate (deaths for all babies up to 1 year of age) should be reduced to no more than 9 deaths per 1,000 live births.
2. By 1990, the neonatal death rate (deaths for all infants up to 28 days old) should be reduced to no more than 6.5 deaths per 1,000 live births.
3. By 1990, the perinatal death rate should be reduced to no more than 5.5 per 1,000.
4. By 1990, no county and no racial or ethnic group of the population (e.g., black, Hispanic, American Indian) should have an infant mortality rate in excess of 12 deaths per 1,000 live births.
5. By 1990, the maternal mortality rate should not exceed 5 per 100,000 live births for any county or for any ethnic group (e.g., black, Hispanic, American Indian).

Reduced risk factors

6. By 1990, low birth weight babies (less than 2,500 grams) should constitute not more than 5 percent of all live births.
7. By 1990, no county and no racial or ethnic group of the population (e.g., black, Hispanic, American Indian) should have a rate of low birth weight infants (prematurely born and small-for-age infants weighing less than 2,500 grams) that exceeds 9 percent of all live births.
8. By 1990, the majority of infants should leave hospitals in car safety carriers.

Increased public-professional awareness

9. By 1990, 85 percent of women of childbearing age should be able to choose foods wisely (state special nutritional needs of pregnancy) and understand the hazards of smoking, alcohol, pharmaceutical products and other drugs during pregnancy and lactation.

Improved services-protection

10. By 1990, virtually all women and infants should be served at levels appropriate to their need by a regionalized system of primary, secondary and tertiary care for prenatal, maternal and perinatal health services.
11. By 1990, the proportion of women in any county or racial or ethnic group (e.g., black, Hispanic, American Indian) who obtain no prenatal care during the first trimester of pregnancy should not exceed 10 percent.
12. By 1990, virtually all newborns should be screened for metabolic disorders for which effective and efficient tests and treatments are available (e.g., PKU and congenital hypothyroidism).
13. By 1990, virtually all infants should be able to participate in primary health care that includes well child care; growth development assessment; immunization; screening, diagnosis, and treatment for conditions requiring special services; appropriate counseling regarding nutrition, automobile safety, and prevention of other accidents such as poisonings.

SOURCE: Reference 3.

- Improving public and professional education
- Coordinating the programs and services provided by the private, public, and voluntary sectors.

Table 1. U.S. infant, neonatal, and postneonatal mortality rates, 1960, 1970, and 1980 and targeted rates for 1990, with percentage distribution of neonatal and postneonatal deaths

Year and age group	Mortality rate[1]	Percentage of infant deaths
1960:		
Infant	26.0	100.0
Neonatal	18.7	71.9
Postneonatal	7.3	28.1
1970:		
Infant	20.0	100.0
Neonatal	15.1	75.5
Postneonatal	4.9	24.5
1980:		
Infant	12.6	100.0
Neonatal	8.5	67.5
Postneonatal	4.1	32.5
Targeted 1990:		
Infant	9.0	100.0
Neonatal	6.5	72.2
Postneonatal	2.5	27.7

[1] Deaths per 1,000 live births.
SOURCE: National Center for Health Statistics

Table 2. Percentage reduction in U.S. infant, neonatal, and postneonatal mortality rates, 1960–70 and 1970–80, with targeted reduction for 1980–90

Age group	Actual percentage reduction		Targeted percentage reduction
	1960–70	1970–80	1980–90
Infant	23.1	37.0	28.6
Neonatal	19.2	43.7	23.5
Postneonatal	32.9	16.3	39.0

In many instances, the activities underway contribute to the achievement of more than one objective because the objectives are interrelated. Examples of these activities will be presented in the discussion of the progress being made toward achievement of the 1990 targets for each of the objectives for pregnancy and infant health.

Improving Perinatal Health

Improvement of perinatal health is the goal of the objectives pertaining to the reproductive continuum. Objectives 1, 2, and 3 are aimed at reducing the incidence rates of infant, neonatal, and perinatal deaths. Data from the National Center for Health Statistics (NCHS) reveal a declining infant mortality rate and show that recent progress has been greater for the neonatal period than for the postneonatal period (tables 1 and 2). Data on the trends in infant and neonatal mortality indicate that these goals may be reached before 1990. The perinatal mortality rate includes events before and after birth and is defined as the number of fetal deaths at 28 or more weeks of gestation (late fetal deaths) plus the number of neonatal deaths of infants under 7 days of age per 1,000 live births plus late fetal deaths. Tables 3 and 4 show that the rate of fetal deaths is declining but not as sharply as the rate of deaths of infants under 7 days of age. Because deaths at under 7 days of age contribute to both the perinatal and neonatal mortality rates, achieving the target of 5.5 for perinatal mortality in 1990 may be unrealistic given the goal of 6.5 for the neonatal mortality rate. If, for example, 75 percent of the projected rate for neonatal deaths is the result of deaths of infants under 7 days of age (a conservative estimate from the 82.5 percent in 1980), the rate of deaths of infants under 7 days of age would be approximately 4.9. Improvement in perinatal survival is anticipated, but this estimated rate of deaths at under 7 days of age would permit a fetal death rate of approximately 0.6—an unlikely situation given the trends in fetal deaths.

Table 3. U.S. perinatal and neonatal mortality rates, 1960, 1970, and 1980, with percentage distribution of perinatal and neonatal deaths

Age group or period of gestation	Mortality rate			Percentage distribution		
	1960	1970	1980	1960	1970	1980
Perinatal[1]	28.6	23.0	12.8	100.0	100.0	100.0
Late fetal[1]	12.1	9.5	5.8	42.3	41.3	45.3
0–6 days[2]	16.7	13.6	7.0	(3)	(3)	(3)
Neonatal[2]	18.7	15.1	8.5	100.0	100.0	100.0
0–6 days[2]	16.7	13.6	7.0	89.3	90.1	82.5
7–27 days	2.0	1.5	1.5	10.7	9.9	17.5

[1] Deaths per 1,000 live births plus late fetal deaths.
[2] Deaths per 1,000 live births.
[3] Not calculated; denominator for rate of deaths 0–6 days differs from the denominator for perinatal mortality rate.
SOURCE: National Center for Health Statistics

Analyses of the progress being made in reducing infant and neonatal mortality reveal that changes in maternal characteristics (shifts in the age-parity distribution) explain less than 30 percent of the general decline in infant and neonatal mortality, and they also show that birth-weight-specific mortality rates have improved (6–9). This progress is generally attributed to advances in technology, such as new methods instituted in neonatal intensive care nurseries, use of specialized personnel, and regionalization of perinatal services.

The training of specialized health personnel receives high priority in the Health Resources and Services Administration (HRSA). Pediatricians, nurse-midwives, and other providers of maternal and newborn health services are trained in programs supported by the agency's Bureau of Health Professions. In the agency's Bureau of Health Care Delivery and Assistance, selected maternal and child health training is funded through Title V Maternal and Child Health (MCH) projects of regional and national significance. For instance, multidisciplinary teams learn to care for newborns with respiratory distress syndrome and other pulmonary conditions in eight pediatric pulmonary centers at different locations across the country. These centers also serve as referral facilities for special services.

Other examples of specialized perinatal services are neonatal intensive care units and transport mechanisms, both supported in part by States' Title V MCH Block Grant funds. According to the Association of State and Territorial Health Officials (ASTHO), which collects data for use by the States through its reporting system, nearly 40 percent of the infants admitted to intensive care nurseries in 1980 were transported from other institutions (*10*). These data are encouraging because they indicate a willingness on the part of health care providers in less sophisticated facilities to refer infants to units organized to provide highly specialized care.

Research on perinatal issues continues to be a priority at the National Institutes of Health. At the National Institute of Child Health and Human Development, plans are in progress to examine the nature, pattern, and consequences of the treatment provided in neonatal intensive care nurseries. The increasing complexity of care in these intensive care units following the research and technological advances of recent years prompted this examination. Research fellowships at seven Institutes expand research competencies in perinatal health.

Table 4. Percentage reduction in U.S. late fetal, perinatal, and hebdomadal mortality rates, 1960–70 and 1970–80, with targeted reduction in perinatal mortality rate for 1980–90

Age group	Actual percentage reduction		Targeted percentage reduction
	1960–70	1970–80	1980–90
Late fetal	21.5	38.9	(1)
Perinatal	19.6	44.3	57.0
Hebdomadal[2]	18.6	48.5	(1)

[1] Not applicable.
[2] Deaths at under 7 days of age.

> *'Assessing the nation's progress toward the establishment of regionalized perinatal care is difficult because clearly defined measures of the concept and an identified mechanism for collecting data are lacking . . . . The data on obstetrical facilities offer evidence that some of the smaller obstetrical units are being closed, and these closings probably reflect an attempt to improve the resources and skills.'*

The trends in perinatal mortality indicate that more needs to be learned about the fetal portion of perinatal deaths. The 1980 National Fetal Mortality Survey, a major research effort of the NCHS, is expected to provide some of the answers. This vital statistics followback survey was based on a 2-in-5 sample of all fetal deaths at 28 weeks or more of gestation that occurred from January 1980 through December 1980 and on the mothers, physicians, hospitals, and other medical sources associated with those fetal deaths. Data on 6,386 fetal deaths were included. The survey is expected to provide national estimates of the numbers of fetal deaths in relation to numerous characteristics that are not available in the vital registration data.

Early Prenatal Care and Healthy Lifestyles

By 1990, the proportion of pregnant women in any county or racial or ethnic group who are without prenatal care in the first trimester of pregnancy should not exceed 10 percent (Objective 11). In 1980, the proportion of late registrants for prenatal care was more than twice the projected target (table 5). Higher percentages of the nonwhite groups than white groups registered late for such care, although there was a trend for black mothers to make greater gains in seeking care early than white mothers, thus narrowing the racial differential. According to summary reports to the Division of Maternal and Child Health, the State Maternal and Child Health programs in Ohio and Michigan recently conducted surveys to determine the current factors associated with late registration for prenatal care. The responses in these surveys indicated that some women were unaware of the importance of prenatal care, while others lacked the financial means to obtain it.

Maternal and child health services offered by programs of the Indian Health Service and the Bureau of Health Care Delivery and Assistance (BHCDA) are designed to improve the availability and accessibility of care. The Indian Health Service works with tribal health departments, private practitioners, and national professional organizations to provide comprehensive MCH services. Emphasis is on the early identification and early entrance into care of pregnant women—especially pregnant teenagers—and on the provision of high-risk screening and health education.

Among the BHCDA programs providing care to underserved populations are Community Health Centers, Migrant Health projects, and the National Health Service Corps. Recent data indicate that during 1982 the 525 Community Health Centers and the 127 Migrant Health projects served approximately 1,360,000 women of childbearing age and more than 160,000 infants. The National Health Service Corps currently has more than 300 obstetricians and family practice physicians providing care to pregnant women and infants in designated Health Manpower Shortage Areas throughout the States and Trust Territories. An additional 300 obstetricians will be placed in underserved areas between 1984 and 1986.

Increasing public awareness and promoting healthy behavior in pregnant women and women planning to become pregnant represent a major thrust in the prevention initiative. For example, cooperative efforts between the BHCDA and the National Institute on Alcohol Abuse and Alcoholism and between the BHCDA and the American Lung Association have resulted in the dissemination of professional resource packets on the risks of alcohol use and smoking during pregnancy to HRSA-administered health care delivery programs. The newly revised HRSA publication "Prenatal Care" also is being circulated widely to States under the Title V program.

The Healthy Mothers-Healthy Babies Campaign is a public information program conducted by a coalition of more than 60 national professional, voluntary, and governmental organizations and agencies. To motivate women to protect their health, the coalition has prepared and is distributing a series of posters to more than 10,000 clinics and other service sites. Targeted for low-income women, these posters present information on nutrition, smoking, breast feeding, alcohol and drug use, and the need for prenatal care. A fine range of materials for radio, television, and community use have been produced by the coalition, and efforts are now underway to promote their use through the development of community-State Healthy Mothers-Healthy Babies Coalition Chapters.

Objective 9 specifically addresses the need to expand the public's knowledge of nutritional needs in pregnancy and of the hazards of smoking and using alcohol while pregnant. Baseline data are unavailable on the public's knowledge of these hazards, but in a special survey that is to be carried out as part of the 1985 Health Interview Survey, the National Center for Health Statistics will seek information on the progress toward this objective. Preliminary results are available from the NCHS 1980 National Natality Survey, a companion followback survey to the 1980 National Fetal Mortality Survey described earlier. Based on a probability sample of live births in 1980, the data from 4,405 married mothers indicated that before pregnancy their smoking and drinking behavior had resembled that of the general population of women. When pregnancy was confirmed, both smoking and drinking were reduced, but the reduction in maternal drinking was more pronounced than the reduction in maternal smoking (*11*). These results suggest that women are becoming aware of the health risks in pregnancy and are altering their habits to reduce them.

Table 5. Percentage of U.S. women in various ethnic groups receiving no prenatal care during first trimester of pregnancy, 1970, 1978, and 1980, with percentage reductions in these percentages realized 1970–80 and targeted for 1980–90

	Percentage with no care in first trimester				Percentage reduction in percentage with no care in first trimester	
Race or ethnic group	1970	1978	1980	Targeted 1990	1970–80	Targeted 1980–90
All groups	32.0	25.1	23.7	10.0	25.9	57.8
White	27.6	21.8	20.7	10.0	25.0	51.7
Black	55.6	38.8	37.3	10.0	30.9	73.2
American Indian	(1)	43.7	41.3	10.0	(1)	75.8
Hispanic	(1)	43.0	39.8	10.0	(1)	74.9

(1) Data not available.
SOURCE: National Center for Health Statistics

Regionalized Perinatal Systems

Besides obtaining early prenatal care, all mothers and their newborns should receive the care appropriate for their health risks through a regionalized perinatal care system (Objective 10). A strong private sector-public partnership is working to set up regionalized perinatal care systems. Representatives of the American College of Obstetricians and Gynecologists, American Academy of Pediatrics, American Academy of Family Physicians, and the American Medical Association, assisted by representatives of the March of Dimes, and consultants from Federal, State, and local maternal and child health programs, published recommendations for organizing such a system in 1976 (*12*). After careful reassessment of those recommendations based upon the experience of the past 5 years, a followup document, "Guidelines for Perinatal Care," was published in 1983 by the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists in conjunction with the March of Dimes (*13*). This document upholds the principle of regionalization of perinatal care, identifies the resources needed for a three-level system, and provides updated recommendations for the management of normal and high-risk patients.

Meanwhile under the Title V MCH program, funds for special projects are targeted to States with excessive rates of infant mortality and adolescent pregnancy to assist these States in establishing regionalized perinatal care systems. Known as Improved Pregnancy Outcome (IPO) projects, they are currently funded in 24 States; their activities are being integrated with the MCH Services Block Grant programs. In progress reports submitted by these IPO projects, a variety of private-public sector activities are described, such as the formation of perinatal advisory groups for quality assurance, the appointment of consultation teams to transmit knowledge to medical care providers beyond tertiary units, and the implementation of data systems to assess and evaluate trends.

Information provided in the final progress report from the South Dakota IPO project illustrates the project's impact in that State. Among the results listed in the report are (*a*) a highly sophisticated neonatal intensive care unit, (*b*) five hospitals at the intermediate level, (*c*) the presence at the most sophisticated center of a specialized professional staff that provides direct services as well as consultation and education throughout the State, and (*d*) the presence of health personnel with advanced training in the followup care and the developmental assessment of infants and young children in each of the four districts of the State. None of these services were available in South Dakota before the IPO program. Moreover, most of the perinatal services initiated under the IPO Project are now sustained by the private sector, while the State underwrites certain limited perinatal services using MCH funds. The South Dakota data show that by the end of the IPO Project, the neonatal mortality rate for both white and Native American infants had decreased, the number of women who began prenatal care in the first trimester of pregnancy was greater, and the percentage of neonates in the intensive care unit who had been born there, rather than being transported there after birth, had increased.

Assessing the nation's progress toward the establishment of regionalized perinatal care is difficult because clearly defined measures of the concept and an identified mechanism for collecting data are lacking. Indications of progress must be derived from a mix of information. The data on obstetrical facilities offer evidence that some of the smaller obstetrical units are being closed, and these closings probably reflect an attempt to improve the use of resources and skills (*14*). Statistics from Alabama, for example, reveal that the percentage of newborns weighing less than 1,500 gm who were delivered at the perinatal center, rather than being taken there later, increased from 13 percent in 1970 to 60 percent in 1980 (personal communication from Dr. Robert Goldenberg, Department of Obstetrics and Gynecology, University of Alabama at Birmingham). This increase indicated (Goldenberg stated) that pregnant women in Alabama who are at high risk are being transported to a regional center, where planned high-risk births are taking place. Reports from State maternal and child health programs provide general descriptions of perinatal services and the process involved in the regionalization of these services. In current research and in other studies supported with Title V funds, various aspects and measures of the movement toward regionalization of perinatal care are being explored. An attempt is being made, in one such study, to identify the changes in State MCH programs that have occurred coincidentally with implementation of the IPO program, and in another, to investigate the factors that contribute to achievement of the goals of regionalized perinatal systems. The results of these studies are to be reviewed jointly by Division of Maternal and Child Health staff members and representatives of professional organizations, so that recommendations can be drawn up for future activities.

High-Risk Mothers and Infants

High-risk mothers and infants are a high priority in the health promotion and disease prevention initiative, and specific goals have been established for at-risk ethnic and racial groups and for small geographic areas. Targeting the women at risk should help lower the maternal mortality rate (Objective 5). In 1980 (according to unpublished data from the National Center for Health Statistics, Division of Vital Statistics), the maternal mortality rate per 100,000 live births was 6.7 for whites, 21.5 for blacks, and 8.2 for American Indians. Major causes of maternal deaths continue to be toxemia, sepsis, and hemorrhage. The Centers for Disease Control (CDC) conducts epidemiologic surveillance of pregnancy-related deaths to assess their preventability. An overview of maternal deaths in the United States from 1974 to 1978 is in preparation, and the results of further analyses by CDC of selected causes of death, such as toxemia and abruptio placentae, will be reported. For now, it is not clear whether the projected goal (Objective 5) can be achieved among the nonwhite subgroups. Meanwhile consideration should be given to revising this objective so as to direct it more to specific racial groups. Also, the reference to county rates (which present statistical problems because they are often based on such a small number of events) should be deleted.

Objective 4 projects that infant mortality rates specific for counties or racial or ethnic groups will not exceed 12 deaths per 1,000 live births. Data in figure 1 indicate that the white subgroup has already exceeded this goal and, also, that American Indians should be able to achieve rates under 12 sooner than 1990. On the other hand, the decrease in mortality rates that is to be achieved for black infants between 1980 and 1990 (43.9 percent) is greater than the entire decrease in the previous decade (34.4 percent). Collection of mortality data on Hispanics has recently been instituted by the National Center for Health Statistics, but data are not yet available.

Overall, the proportion of low-birth-weight babies is expected to decrease to 5 percent of total live births (Objective 6), whereas the goal for subgroups is set at 9 percent (Objective 7). In 1980, the proportion of low-birth-weight infants was 6.8 percent (4). Rates for white, Hispanic, and American Indian infants were well under the target, but the rate for black infants was almost twice that for the other subgroups (fig. 2). Low-birth-weight rates have declined by relatively small amounts since 1960. Therefore attainment of an overall rate of 5 percent by 1990 may not be feasible, although the current surge of efforts to find and implement clinical methods to prevent preterm labor may help improve this rate.

It is evident that substantial progress will have to be made if the objectives pertaining to high-risk mothers and infants are to be reached. Varied activities, underway or planned, focus on high-risk women and children. For example, the migrant health program of the Bureau of Health Care Delivery and Assistance supports five perinatal centers in Texas, Florida, and Oregon, whose purpose is to improve accessibility to care. These centers offer full-cycle maternity care to migrant women. In California, the health officers association initiated a 3-year Border Maternity Health Care Project in October 1983, as a special program of regional and national significance funded by Title V. The project is designed to improve birth outcomes for Hispanic-surnamed low-income women through the coordination of resources, the collaboration of public health providers near the California-Mexico border, and the production and distribution of guidelines for the management of care as well as a resource directory and health education materials.

Numerous efforts have been directed at reducing the incidence of low birth weight because prevention of its occurrence will markedly reduce infant mortality and long-term morbidity. North Carolina has implemented a

Figure 1. Infant mortality rates by race or ethnic group, United States, 1960–80

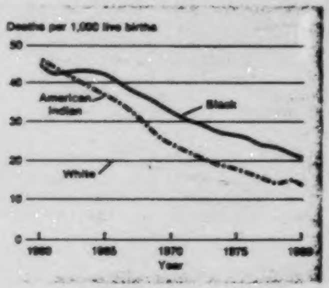
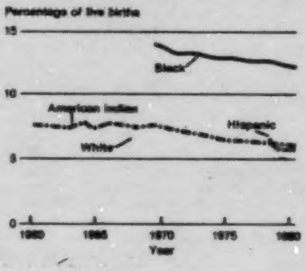


Figure 2. Low-birth-weight infants by race or ethnic group, United States, 1960–80



5-year plan to decrease the incidence of low birth weight. Adapting an approach used by investigators in California (*15,16*), the North Carolina Department of Human Resources, in cooperation with the private sector and academia, launched this effort in June 1983 with an educational campaign.

The National Institute for Child Health and Human Development has put considerable research emphasis on low birth weight and preterm labor. At a conference in June 1983, scientists reviewed the current knowledge of intrauterine growth retardation and recommended directions for future research in this area. Additionally, plans are in effect for a clinical trial of the prevention of prematurity by the detection and treatment of gestational genitourinary infections. The mechanism and the hormonal factors that are responsible for initiating labor will be considered, as well as methods for safely arresting premature labor.

Protecting Infant Health

Beyond the perinatal period, the priorities established relate to reducing risk factors, improving services, and protecting infant health. The screening of newborns for treatable metabolic disorders should be universal (Objective 12). Current data indicate that this objective has been achieved. Through MCH Services Block Grant funds, all States are providing screening and followup of newborns and treatment for PKU (phenylketonuria) and congenital hypothyrodism (table 6). The available information on the number of newborns screened includes data collected in regional newborn screening programs and data collected from State MCH programs under the ASTHO Reporting System (table 7). If allowance is made for neonatal deaths that occurred before collection of the screening samples and for the refusals by some parents to permit screening tests of their newborns, approximately 98 percent of the live-born infants whose births are reported to vital statistics offices are screened for these two conditions.

A significant aspect of this preventive screening is its cost-effectiveness. Reports from screening programs provide ongoing documentation. For example, the Colorado Department of Health, which operates a regional newborn screening program for three States and screens each newborn blood sample for six conditions, estimates that $7.90 is saved for each dollar spent (*17*). The State of Washington, which conducts a screening program for congenital hypothyroidism and phenylketonuria, has calculated that the cost of screening for these conditions, of identifying one infant with one of them, and of providing that infant with lifetime treatment is $17,439; if, however, the screening and treatment were not carried out, the cost would be $207,673 (a ratio of saving-benefit to cost of 11 to 1) (*18*).

Assuring comprehensive primary health care for all infants also is a 1990 goal (Objective 13). Definitive data are not available on the progress made so far toward this goal and would be difficult to obtain because of the multiplicity of care providers and of services. The private sector of medicine continues to provide primary care to the majority of the nation's infants under the standards of care of the American Academy of Pediatrics and other professional organizations. Programs administered by the Health Resources and Services Administration such as Indian Health, Maternal and Child Health, and Primary Care, assist States, communities, and special populations in the development and support of comprehensive primary care services for infants and children. The infants and children in underserved populations are among those cared for by these services. A joint goal of BHCDA and the Health Care Financing Administration is to improve the coordination between health service programs and the health financing system in order to help low-income families obtain health care for their children.

Among the activities directed at providing comprehensive services for infants and children, particular attention

Table 6. Number of States with mandated and voluntary programs to screen newborns for PKU (phenylketonuria) and congenital hypothyroidism, 1983

Basis of screening	States with screening programs for PKU	States with screening programs for congenital hypothyroidism
Mandated by State statute	47	41
Offered on voluntary basis	4	10
Total jurisdictions¹	51	51

¹ Includes District of Columbia.

SOURCE: Division of Maternal and Child Health, Bureau of Health Care Delivery and Assistance, Health Resources and Services Administration, Department of Health and Human Services.

Table 7. Screening of newborns by State MCH (Maternal and Child Health) agencies for PKU (phenylketonuria) and congenital hypothyroidism, fiscal year 1981

Reported activities of MCH agencies	Screening for PKU	Screening for congenital hypothyroidism
Number of MCH agencies	35	33
Total newborns screened	2,344,874	2,214,540
Percentage of newborns screened	98.6	95.8

NOTE: Data are included only from agencies reporting detailed screening information.

SOURCE: This table is adapted from one on page 5, reference 12.

has been devoted to accident and injury prevention. Under an initiative of the Division of Maternal and Child Health, the guidance and technical assistance needed for establishing a program of injury prevention in infancy and childhood has been obtained from a broad spectrum of experts in the private and voluntary sectors as well as in Federal, State, and local governments. As part of this national effort, three projects on childhood injury prevention were begun in California, Massachusetts, and Virginia, with the support of Title V funds for special projects of regional and national significance. These projects have (*a*) provided a significant epidemiologic data base on childhood injuries; (*b*) conducted model community-based injury prevention programs; and (*c*) contributed materials both for a nationwide The Injury Prevention Program (TIPP) launched by the American Academy of Pediatrics and for an "Administrative Guide for State Maternal and Child Health (Title V) Programs: Developing Childhood Injury Prevention Programs" distributed by the Division of Maternal and Child Health. Many State health agencies, as well as practicing physicians and other health care providers, have used these data and the guidance and educational materials produced in these demonstration projects to assist them in setting up State and local childhood injury prevention programs.

In the realm of accident and injury protection, another thrust is to mandate the use of restraints in vehicles for infants and children (Objective 8). The Center for Environmental Health, Centers for Disease Control, supports demonstration programs designed to stimulate increased use of child restraints through community education and encouraging the expansion of child-restraint loan programs, including those to ensure the safe transport of newborns from hospitals. The American Academy of Pediatrics and the Department of Transportation also have sponsored a public awareness campaign, "First Ride/A Safe Ride." The National Highway Traffic Safety Administration, Department of Transportation, has reported that as of September 1983, 40 States and the District of Columbia had laws mandating use of such restraints for infants and toddlers. Of the remaining States, child restraint legislation had been introduced in all but two (personal communication from Office of Occupant Protection, National Highway Traffic Safety Administration, Department of Transportation, Washington, D.C.).

This review has touched on only a few of the efforts underway to achieve the goals set up for pregnancy and infant health. It is apparent that assuring optimal health for the nation's mothers and infants will remain a challenge for the years ahead. Clearly progress is being made, but more time will be needed before its exact extent is known.

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DEPARTMENT OF HEALTH & HUMAN SERVICES
Health Care Financing Administration

The Administrator
Washington, D.C. 20201

APR 17 1984

The Honorable John D. Dingell
Chairman, Subcommittee on
Oversight and Investigations
Committee on Energy and Commerce
House of Representatives
Washington, D.C. 20515

RECEIVED
APR 17 1984
Subcommittee on
Oversight and Investigations

Dear Mr. Chairman:

I was pleased to have the opportunity to testify last month before you and members of the Energy and Commerce Subcommittees on Health and Oversight on the topic of Medicaid coverage of pregnant women and children. This letter supplies a portion of the materials for the hearing record which you requested from me on April 3. The remaining answers will be submitted by close of business Friday, April 20. I hope this information will answer your concerns.

1.Q. In response to a question by Mr. Sikorski on the availability of prenatal care services to Medicaid-eligible women, you responded that "using the combination of services from the two profile groups, it appears there is overall adequacy within states. There may be geographic areas within the states that might have some access problems". You agreed to check data available to your agency on the extent to which there were or were not gaps. Please respond to the following questions and include the data on which you base the answer:

a. What do the data show with regard to gaps in services available to Medicaid women in need of prenatal services?

b. If data do not exist or are insufficient to determine where gaps exist and to specify the nature of the services needed, please describe these deficiencies and proposals from your agency and the Public Health Service (PHS) to remedy them.

c. What were you referring to when you said (in the previously mentioned statement) "combination of services from the two profile groups"? What "combination of services" and what are the "two profile groups"?

A. The "combination of services" and "two profile groups" in my testimony referred to physicians' and nurse-midwife services provided by these two specific groups of health specialists.

The Health Care Financing Administration (HCFA) cannot at the present time determine the extent of the difficulties that Medicaid-eligible women experience with access to prenatal care. This is because data on Medicaid eligibles and services is not reported by specific diagnosis. For example, Medicaid expenditures for "physicians' services" or "inpatient hospital services" can be enumerated; however, treatment costs by individual diagnosis (e.g., prenatal care) or by specialty (e.g., obstetrical services) within a general category of service cannot be disaggregated.

The level of detail which is needed to answer these questions on a nationwide basis would be very costly and burdensome for the states to produce. Indeed, in the past, the National Governors' Association has asked us to provide the states relief from such expensive and detailed data requirements.

However, in the near future, we will have available a new data base that will provide more detailed claims information on recipients in selected states. A HCFA-funded project is now being conducted by SysteMetrics, Inc. which will collect and analyze person-level data on Medicaid enrollment, claims (including diagnostic data), and providers by specialty for recipients in the states of New York, California, Michigan, Tennessee, and Georgia. These states represent approximately 40 percent of total Medicaid expenditures. We expect that such detailed claims information, which was never available to us before in computer tape form, will help us analyze service delivery in these states.

For the general Medicaid population, several studies funded by HCFA have shown that:

- The majority of recipients are satisfied with the medical care they receive;
- Despite problems of nonavailability of physicians in some geographic areas, most recipients are able to see a physician when needed; and
- Physician participation levels vary by state and depend on a number of factors, including reimbursement rates, administrative paperwork, scope of benefit package and eligibility criteria, and timeliness of claims processing.

For the information of the Subcommittees, these specific studies and their findings are described in Exhibit A.

In the future, additional HCFA-funded research on physician participation in the Medicaid program will be conducted through a joint contract with the National Opinion Research Center and Health Economics Research. The purpose of the study is to update 1981 research on factors that affect physician participation in the program. We anticipate that data from this survey will aid in the determination of the net impact of such factors as growing physician supply and new Diagnosis Related Group (DRG) payments on overall physician participation and in the assessment of differential specialty and regional participation rates on access to care. Final results are due in June 1985.

The Health Care Financing Administration is also beginning a major data collection effort on overall provider participation, including physician participation, in the Medicaid program. A new report on provider participation in the Medicaid program is to be prepared by each State Medicaid agency for annual submission to HCFA, beginning on April 15, 1984.

The provider participation report will provide basic nationwide information on the participation of various health care provider groups in the Medicaid program. The report will request the number of providers by type (e.g., general hospital or physician) who were reimbursed by the State Medicaid agency in the calendar year. For each provider type, the number reimbursed will be distributed across specified dollar intervals based on payments to each provider.

The data in the report will be used by HCFA:

- To better understand the current service delivery system in each state;
- To monitor the effects of Federal and state program changes on participation rates of various provider groups; and
- To respond to Congressional and public inquiries concerning the number of participating providers.

Data from the report will be available in July 1984, for the Calendar Year 1983.

3.Q. What number and proportions of women and children in poverty are not covered by Medicaid at present, and for each year that you have been Administrator of HCFA? (Because these will be estimates, please show the basis for your calculations and identify the poverty standards used.)

A. The data that you request have been taken from the National Medical Care Utilization and Expenditure Survey (NMCUES) which is cosponsored by HCFA and the National Center for Health Statistics, PHS. The survey was used to collect detailed sociodemographic, health status, health insurance, and health care payment data for 1980 that were not available from either the Medicare or Medicaid administrative record systems. These numbers were obtained from a randomly selected national household sample of the civilian noninstitutionalized population. Because the survey collected information for only 1980, we cannot provide similar data for subsequent years.

Medicaid Coverage of Women and Children in Poverty* (1980)
(in millions)

	Total number in poverty	Medicaid		Non-Medicaid	
		Number	Percent of total	Number	Percent of total
Women (age 18-44)	5.1	2.6	51.0	2.5	49.0
Children (age 0-17)	9.4	5.2	55.3	4.2	44.7

*Level of poverty as designated by the U.S. Census Bureau

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7.Q. You referred to a 1983 Urban Institute Study on physician supply. Please provide the full citation and a copy of it. Also, please summarize the findings and its implications for access to physician services. If you have taken or intend to take any actions based on this information, please so specify.

A. A copy of the study can be found at Exhibit B. A brief summary of its findings can be found at Exhibit A.

12.Q. Please provide the data for 1982 and 1983 showing:

- o The number of families eligible for Medicaid each year indicating the magnitude of the increase or reduction;
- o The number of families enrolled in the Medicaid program each year indicating the magnitude of the increase or reduction;
- o The number of women of childbearing age eligible for Medicaid each year indicating the magnitude of the increase or reduction;
- o The number of women of childbearing age enrolled in the Medicaid program each year indicating the magnitude of the increase or reduction;
- o The number of children eligible for Medicaid each year indicating the magnitude of the increase or reduction; and
- o The number of children enrolled in the Medicaid program each year indicating the magnitude of the increase or reduction.

A. All the data that you request is not available. However, we do have data on the number of recipients of Medicaid services. Specifically, we can provide the following figures which represent the total number of recipients by type of recipient (in thousands):

	FY 82	FY 83
AFDC Children	9655	9412
Other Children	1454	1323
AFDC Adults	5403	5456

We would caution that the 1983 numbers are comprised of raw unedited data and are subject to change. Similarly, the 1982 figures will change as amended final reports are received from states.

I hope this material will fulfill the information needs of your Subcommittees' members. We will supply you soon with the remaining answers.

Sincerely yours,

Carolyne K Davis

Carolyne K. Davis, Ph.D.

Enclosures

EXHIBIT A

HCFA-Funded Research on Physician Participation in the Medicaid Program

1. The Effect of Reimbursement Arrangements on Physicians' Services and Incomes from Medicare and Medicaid. The Urban Institute 4/83. (Summary at enclosure Exhibit B).

   Examined the effects on physician participation in the California Medi-Cal program of a physician reimbursement freeze in 1974-76 and an increase in primary physician rates in 1976-78.

   Pertinent findings include:

   - Despite controls, rates of physician participation and provision of Medi-Cal services increased for most specialties. This could have occurred because of an increase in physician supply in California; and
   - Increases in fees had the effect of increasing further the number of participating physicians.

2. Variations by State in Physician Participation in Medicaid Programs. American Academy of Pediatrics 10/82.

   Examined state variations in pediatric participation in 13 Medicaid states.

   Pertinent findings include:

   - Eighty-five percent of pediatricians participate in Medicaid;
   - Physicians' participation is influenced by the demand for both Medicaid and non-Medicaid services and the supply of health care resources; and
   - More physicians participate in states with higher reimbursement levels, quicker claims payments, less restrictions on coverage, fewer requirements for prior authorization, fewer fluctuations in eligibility, and generally less restrictive policies.

3. Physician Participation in Public Programs. Center for Health Economics Research 9/81. Conducted multivariate statistical analysis of Medicare and Medicaid program characteristics which affect physician entry and level of participation in these two public programs.

   Pertinent findings include:

   - A 10 percent increase in Medicaid fees raises physician participation 4 percent. Higher third party payments, e.g., Blue Shield, will reduce participation in the public programs;

EXHIBIT A

- Imposition by states of utilization limits and prior authorization for payment lowers participation, especially for specialists;
- Quick claims payment encourages physician participation; and
- Physician participation is higher in states offering broader eligibility coverage.

6. Availability of Physician Services to Medicaid Beneficiaries. Service Delivery Assessment, Department of Health and Human Services, Office of the Inspector General, 8/80.

Survey of recipients and providers in 10 states to assess whether Medicaid clients have adequate access to physicians' services and to obtain information from participating and nonparticipating physicians regarding their experiences with and attitudes toward the Medicaid program and its beneficiaries.

Pertinent findings include:

- Ninety-six percent of Medicaid clients say they are satisfied with the medical care they receive. Most clients (78 percent) believe that the quality of care they receive is about the same or somewhat better than the care afforded private pay patients;
- Medicaid clients compare favorably with non-Medicaid low and upper income clients in terms of physician accessibility. They visit doctors more frequently and are scheduled for appointments more promptly than either of these comparison groups;
- Despite problems of nonavailability of physicians in some geographic areas, most clients are able to see a physician when needed, although not always a private office-based physician; and
- Clients report very few refusals or discouragements in seeking care. Six percent say they have been refused care because of their Medicaid status, and 6 percent say doctors' staff have discouraged them from making an appointment.

The Effects of Reimbursement Arrangements
on Physicians' Services and Incomes
from Medicare and Medicaid

A summary of the Final Report of Health Care Financing Administration Grant No. 18-P-97008/3. The statements, data, and findings contained in this paper do not express any official opinion of or endorsement by the Health Care Financing Administration or The Urban Institute.

I. Study Objectives

The objectives of this study were to analyze physician responses in California to four important reimbursement policies established by or affecting Medicare and Medicaid. In Medicare, two policies were examined: the controls imposed during the 1972-74 Economic Stabilization Program and the Economic Index introduced on July 1, 1975. The concern was whether and to what extent physicians responded by changing service delivery patterns, accepting assignment of claims, etc. In Medicaid, physician response to a freeze on fees in California between 1974 and 1976 was analyzed. This was of particular interest because severe fee controls are a rather common practice of many Medicaid programs, especially those in large urbanized States. The California Medicaid program also raised fees in September 1976 in a way that provided significant incentives for primary care physicians to increase participation in the program. Since it is rare to find a natural "experiment" that tests the effect of a change in relative prices facing physicians, this second Medicaid policy initiative was also of great interest.

II. Program Background

A. Medicare Reimbursement

Medicare reimbursement is based on a system of reasonable, customary, and prevailing charges. A customary charge is the physician's median charge for a given procedure in the calendar year preceding the current fee screen year. The prevailing charge is the 75th percentile of median charges weighted by number of services for physicians in a geographic area for the prior calendar year.[1] The reasonable charge is the lowest of the customary, prevailing, and actual billed amount.

For covered physician services, Medicare (Part B) will pay 80 percent of the reasonable charge after an annual deductible. Physicians may provide Medicare services on either an assigned or nonassigned basis. If a physician accepts assignment on a given claim, he agrees to accept the reasonable charge as payment in full. The physician submits the bill directly to the Medicare carrier and bills the patient for the 20 percent coinsurance amount plus any unpaid deductible. If the physician refuses assignment, he bills only the patient. The patient must then pay the bill in full and recover from Medicare the amount equal to 80 percent of the reasonable charge less any unpaid deductible.

The State of California buys Medicare Part B coverage for its aged Medicaid recipients. Physicians are required to accept assignment on services provided to aged Medicaid patients. Services to joint Medicare/Medicaid recipients are therefore referred to as mandatory assigned services. In such instances, the physician bills the Medicaid program for the coinsurance and deductible rather than billing the patient.

While the customary, prevailing, and reasonable charge (CPR) methodology was in force at the time of this study, the imposition of fee controls during the Economic Stabilization Program (ESP) caused the determination of reasonable charges to diverge from the stated methodology. The price controls under ESP permitted reasonable charges to increase by only a fraction of what their increase would have been using the CPR methodology. Because the controls on Medicare fees were stricter than those placed on private prices, the divergence between Medicare reasonables and private prices increased during the control years. The controls were lifted in 1974. However, reasonable charges for fee screen years 1974 and 1975 were based on actual charge data from calendar years 1972 and 1973. Therefore, the increase in reasonable charges in the 2 years after controls was limited because the controls were effective in restraining private price.

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[1] For example, customary and prevailing charges for July 1, 1974, to June 30, 1975, are based on actual charges in calendar year 1973.

In 1976, the CPR methodology for determining reasonable charges was legislatively altered when Medicare placed limits on the rate of increase in prevailing fees. Prevailing fees are not permitted to increase by more than the rate of the Medicare Economic Index. The Index is a composite of changes in the general earnings levels of workers attributable to factors other than increases in their productivity and changes in expenses of the kind incurred by physicians in office practice. This constraint on prevailing charges was included in the 1972 Social Security Amendments but was not implemented until fee screen year 1976 because of the ESP. Assuming physicians generally exhibit rates of price increase that are in excess of the Economic Index, the result of the Index over time may be to create a de facto fee schedule in the Medicare assignment market. The resulting increased divergence between private price and Medicare reasonable fees may make the Medicare market less attractive to physicians and reduce their willingness to participate in the program.

B. Medicaid Reimbursement

The Medicaid portion of this study explores the consequences of controls on physician fees by State Medicaid programs. Data from California for the period 1974-78 are analyzed. During the first part of this period, 1974-76, physician fees were frozen by the State. Fees during this period were based on a usual, customary, and reasonable charge system employing 1968 charges with only a 2.5 percent increase permitted in 1972. In September 1976, California changed its reimbursement system to a uniform Statewide schedule. The State determined the average rates it was paying for each procedure, thus eliminating all interphysician differences in fees. It then applied rate increases to each procedure. On the average, the new schedule reflected a 30-percent increase for maternity care services, a 20-percent increase for primary care services and a 65-percent increase for anesthesia services. All other services received an increase of 9.5 percent. Thus, fees were not only increased but relative fees were "twisted" in favor of particular procedures and in favor of physicians more likely to provide those services. Following this one-time fee increase in 1976, reimbursement rates (with one exception) remained constant for the remainder of the study period. The exception was a 7.7 percent increase in pathology fees in 1977.

Control and manipulation of fees have become important policy tools employed by State programs in their efforts to control Medicaid costs. Because of the complexity of Medicaid law and regulations, States' choices of policies to control cost escalation are limited. Physician payment policy, however, is a matter of considerable State discretion and States have responded with substantial control over rates. Thus, the California policy is far from atypical. States such as New York, Massachusetts, Pennsylvainia, Connecticut, Illinois, Ohio, and New Jersey have kept Medicaid fees either constant for long periods of time or well below those paid by other insurers.

III. Key Findings

This report consists of seven separate studies. Each uses a common data base derived from physicians claims data provided to The Urban Institute by Blue Shield of California and the Occidental Insurance Company. The data consists of all Medicare and Medicaid claims submitted during the same 3-month period over a 7-year period, 1972-78, by 5,000 solo practice physicians and more than 350 groups.

The first study, "Price Controls, Physician Fees, Output, and Revenue from Public Medical Programs: Evidence from Five Specialists," examined the responses to fee controls under the Economic Stabilization Program (ESP) of orthopedic surgeons, opthalmologists, radiologists, anesthesiologists, and psychiatrists. The study found that physicians provided more services and were less likely to accept assignment; as a result, the percentage increase in Medicare payments to physicians was considerably more than ESP's allowed percentage increase in fees.

The second study, "The Medicare Assignment Rates of Physicians: Their Responses to Changes in Reimbursement Policy," examined how assignment rates of physicians responded to Medicare fee changes. The study concludes that assignment rates will increase if Medicare rates rise relative to private market rates. Although assignment rates are very responsive to Medicare rates, they also respond to changes in private market prices which are increasing simultaneously. The authors contend that upward adjustments in Medicare rates are partially responsible for the increase in private rates. The net result would be that increases in Medicare reimbursement rates would have little effect on assignment rates so long as private charges are not controlled. At the same time, however, control over Medicare rates without comparable controls over private rates would reduce assignment rates and shift some of the financial burden to beneficiaries.

The third study, "An Analysis of Changes in Physicians' Medicare Revenues," examined changes in physicians services' and revenues before and after the introduction of the Economic Index. The study found that the Index only had a significantly constraining effect on Medicare rates in its first year. There was also a reduction in physician participation in Medicare, a shift from assigned to nonassigned billing and an increase in patient financial burden.

The fourth study, "Medicaid Fee Controls and Physician Behavior: Preliminary Evidence from California," examined physician participation in Medicaid during two very different periods: 1974-76 when fees were frozen at the same time that private rates were climbing rapidly, and 1976-78 when California increased fees by an average of 20 percent, with greater percentage increases for primary care services and smaller percentage increases for surgery, radiology, and pathology. The study found that despite the controls, participation rates and services per participating physician increased for most specialties. Consequently, it is likely that even low Medicaid rates exceeded the marginal costs of providing services, at least for many physicians. This could have occurred because the increasing supply of physicians made Medicaid patients more attractive. After the fee schedule increase, primary care physicians markedly increased the number of patients they treated.

The fifth study, "The Effects of Medicaid and Private Fees on Physician Participation in California's Medicaid Program, 1974-78," provided further analysis of the same data. The central issue was whether other factors such as changes in eligibility, the supply of physicians, wage costs, etc., were responsible for the effects observed in the previous study. The results confirmed that increases in Medicaid fees had major effects on the supply of services provided to Medicaid patients. The effect again was primarily on the number of patients seen per participating physician. The study also found that while the one-time Medicaid fee increase had substantial effects, the continued increases in private fees eventually more than offset the Medicaid fee change. The increasing supply of physicians was also found to increase the willingness of physicians to provide services to Medicaid patients.

The sixth study, "The Provision of Medicaid Services by Group Physicians," analyzed data on group practice physicians to see if they responded to Medicaid fee policies in the same way as solo practitioners. The study demonstrated that group physicians responded in the same directions but even more strongly than solo practice physicians. Participation rates and the number of patients per group increased by greater percentages than those observed in the solo practice study.

The final study, "A Comparison of Practice Patterns of New and Established Physicians: California, 1978," compared new and established physicians to test for differences in charge levels, public program participation, and service delivery patterns. The study found that new physicians had higher charges and were less likely to participate in either Medicare or Medicaid than established physicians. Those new physicians who did participate in Medicaid had heavier patient loads than established physicians, while the opposite pattern was observed in Medicare. The study did not find that new physicians saw their patients more frequently or performed more ancillary services.

DEPARTMENT OF HEALTH & HUMAN SERVICES

Health Care Financing Administration

The Administrator
Washington, D.C. 20201

APR 20 1984

The Honorable John D. Dingell
Chairman, Subcommittee on
Oversight and Investigations
Committee on Energy and Commerce
House of Representatives
Washington, D.C. 20515

RECEIVED
APR 20 1984
Subcommittee on
Oversight and Investigations

Dear Mr. Chairman:

This is to follow up my letter of April 17 to provide you with the additional information that you requested from me on April 5. I hope these two sets of materials will satisfy the information needs of you and members of your Subcommittee.

2.Q. Medicaid Regulation 42.447.204 requires that Medicaid payments "be sufficient to enlist enough providers so that services under the plans are available ..."

a. By what standards does HCFA determine the sufficiency of payments for this purpose?

b. What, if any, levels of payment have been found to be insufficient?

c. How does HCFA monitor whether state Medicaid programs are in compliance with the regulations? Please summarize the monitoring method used now and any changes contemplated to improve it.

d. What does your current surveillance show with regard to compliance? Please document.

e. What methods of enforcement are available to you to ensure compliance? Please identify any instances during your tenure at HCFA where such enforcement methods have been used and indicate the results of the interventions.

A. Institutional Services

In general, recipient access to institutional services, such as those provided in hospitals or nursing homes, is monitored by HCFA through a review of state Medicaid plan submissions on their institutional reimbursement methodologies.

Thus far, two (New Hampshire and Nebraska) of the proposed plan amendments for inpatient hospital services submitted to HCFA have been disapproved for failing to result in rates that are reasonable and adequate. In addition, of the over 200 plan amendments submitted by states concerning reimbursement for long term care facility services, HCFA has disapproved three plan amendments (Missouri, Nebraska, and Illinois).

Page 2 - The Honorable John D. Dingell

Section 1902(a)(13)(A) of the Social Security Act, as amended by the reconciliation acts of 1980 (section 962) and 1981 (section 2173), requires that a state plan for medical assistance provide for the reimbursement of inpatient hospital services and long term care facility services through the use of rates which the state assures are reasonable and adequate to meet the costs of an efficiently and economically operated facility to provide care in conformity with applicable state and Federal law, regulations, and quality and safety standards. The state must also assure that individuals eligible for medical assistance have reasonable access (taking into account geographic location and reasonable travel time) to inpatient hospital services of adequate quality.

Prior to the enactment of section 2173, only 12 states had implemented alternative Medicare reimbursement systems for inpatient hospital services. Subsequent to the enactment of section 2173, an additional 16 States and the District of Columbia have received approval for alternative reimbursement systems, three States have alternative plans pending approval; and two States have had their plans disapproved under Medicaid.

Noninstitutional Services

Access to Medicaid services provided to recipients in noninstitutional settings by such providers as physicians, health maintenance organizations (HMOs), or clinics is monitored by the states in consultation with state and local medical societies through their licensing and rate-setting functions.

4.Q. You indicate that it would be useful for the Office of Technology Assessment (OTA) and the Institute of Medicine (IoM) to study and review the effectiveness of legislative programs which are intended to address infant mortality and the coordination among programs. Please summarize:

a. The questions about which you intend to seek guidance from the IoM and/or the OTA;

b. Your method and timetable for doing so;

c. The size of HCFA research budget;

d. The HCFA projects related to infant mortality rate since 1980 and their results;

e. Any policy changes made or contemplated by HCFA which relate to Medicaid and infant mortality; and

f. Any research on infant mortality contemplated for the near future.

A. You misunderstood my testimony on this point. While it is true that the PHS and HCFA conduct the majority of research and program activities related to factors affecting infant mortality, there are numerous other government programs, such as the Women and Infant Care (WIC) and Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) programs, that influence infant health. I made the suggestion during my opening remarks that members of the Subcommittees may wish to ask the OTA or IOM to review the effectiveness of these programs across the entire government.

The total HCFA Fiscal Year 1984 research appropriation is $31 million.

During the hearing, I testified on a number of HCFA-funded studies which addressed physician participation in the Medicaid program as well as several child health-related projects sponsored by HCFA as part of the Early and Periodic Screening, Diagnosis and Treatment (EPSDT) program. These studies all relate to factors affecting infant health. In addition, I am providing the following descriptions of four current HCFA-funded studies related to children's health services under Medicaid.

HCFA Projects Related to Preventive Health Care for Children

HCFA has funded four research and demonstration projects that are studying preventive health services for children:

1. Health Care Services for Children - Grantee, Johns Hopkins Hospital. Period: August 1981 - September 1983
   - Description: The University is obtaining information on the cost and effectiveness of services for children eligible for the Medicaid EPSDT program. Data on the costs and utilization of services for children using private practitioners, hospital clinics, emergency rooms and various combinations of delivery systems serve as the basis for this analysis.
   - Status: HCFA is awaiting the preliminary reports.

2. Prenatal Care and its Relationship to Medicaid Costs - Grantee, Missouri Division of Health. Period: March 1983 - March 1985
   - Description: The project links birth certificate records with Medicaid obstetrical and newborn records. The combined data will be used to study the obstetrical and newborn Medicaid costs associated with women who receive preventive prenatal services as opposed to those who do not receive adequate services.
   - Status: The data are being developed. Since the project will not be completed until 1985, no results are available.

3. The California Obstetrical Access Pilot Project - Grantee, California Department of Human Services. Period: July 1979 - March 1983

   - Description: The project involved 1,391 Medicaid eligible and non-eligible low-income pregnant women at 11 clinics statewide to demonstrate that early access to obstetrical and prenatal care for pregnant women eligible for title V (Maternal and Child Health) and title XIX (Medicaid) coverage will reduce subsequent morbidity and mortality for both the mothers and infants.

   - Status: The preliminary findings show that the OB-Access program reduced the low-birth weight rate. Analysis of cost data has not been completed. However, data indicate that the mean total cost for the experimental group (not including cost of hospitalization for delivery) was $865. State staff estimated that this exceeds routine MediCal program costs for pregnancy-related services by approximately $250. Moreover, they believe that the real savings lie in costs avoided for services to premature (i.e., under 1,500 gram) infants; they believe that the approach used for the experimental group has avoided some newborn intensive care unit costs.

4. State Policies and Procedures for Determining Coverage for Newborns - Grantee, American Academy of Pediatrics. Period: January 1981 - January 1983

   - Description: This study was conducted to identify the variety of state Medicaid policies relating to the coverage of newborns and to present realistic options for overcoming the problems created by the current policies.

   - Status: This first phase of the study has described the varieties of rules, regulations, and practices that exist among the 50 programs that potentially may impact medical care necessary for newborns or that, in operation, tend to discourage hospitals and physicians from accepting Medicaid patients. Within the framework of existing rules, various practices are in operation that may facilitate or prevent the prompt establishment of eligibility. A report is in final preparation.

In addition to these research and demonstration projects, on March 27, 1984, HCFA published in the Federal Register a notice to encourage states to maximize the availability of preventive services, including prenatal care, to their Medicaid populations, and to solicit public comment on the criteria that will be used by HCFA to evaluate new state plan amendments to add preventive services as a part of the Medicaid benefit package. We expect that this approach will emphasize the importance and cost-effectiveness of all preventive care, and would hope that states will develop strategies to enrich preventive services to their eligible pregnant women and children.

5.Q. In his testimony, Dr. Brandt referred to the success of the Indian Health Service in its prenatal care program. Your own agency has participated in a program in California (the O.B. Access Project funded by HCFA Grant #11-P-97223/9-03 and the Evaluation Grant #11-P-97578/9-03) to increase access to quality prenatal care for Medicaid recipients which has reported some impressive preliminary evidence on the program's reduction of low birth weight and infant mortality rates. You also endorsed EPSDT as a cost-effective preventive program. Dr. Brandt indicated that prenatal care was also cost-effective. What steps do you intend to take, if any, to increase utilization of medical services for women and infants during the first year of life among:

a. Those enrolled in Medicaid but not now utilizing services as recommended by the American College of Obstetricians and Gynecologists and the American College of Pediatrics.

b. Those eligible for Medicaid but neither enrolled nor using services as recommended by the American College of Obstetricians and Gynecologists and the American College of Pediatrics; and

c. Those unable to purchase services as recommended by the American College of Obstetricians and Gynecologists and the American College of Pediatrics for pregnant women and infants but who are currently excluded from Medicaid despite low income level.

A. The PHS and HCFA have collaborated for several years on mechanisms to enhance the use of Medicaid funds to improve pregnancy outcome for eligible mothers and babies. Considerable effort has been devoted to implementing interagency agreements and providing technical assistance to the State Health Departments and Medicaid agencies. PHS and HCFA are jointly developing information for use by state agencies in the delivery of services related to pregnancy and infant health.

An area which will be expanded is data and information. PHS and HCFA have discussed the issuance of guidance on the positive impact of early prenatal care, the early identification of high-risk pregnant women and infants, standards of care, and the comprehensiveness of health care services.

The ongoing collaborative effort between HCFA and PHS, with pregnancy and infant health as a mutual high priority, provides a vehicle to improve pregnancy outcome for the nation.

6.Q. You indicated that nurse-midwives may enhance the availability of prenatal services to Medicaid-eligible women in areas where there are physician shortages or physicians unwilling to provide services under Medicaid. Please provide a summary of the evidence that nurse-midwives are increasing use by Medicaid-eligible women of prenatal care. Also, describe the role being taken or anticipated by HCFA to support this development.

A. As a result of the Omnibus Budget Reconciliation Act of 1980 (P.L. 96-499), 40 states now cover the services of a nurse-midwife to the extent that he/she is authorized to practice under state law. This number has increased steadily since the implementation of our regulation on July 16, 1982.

Our data system does not disaggregate claims for nurse mid-wife services from other practitioners' services. We, therefore, have no specific data on nationwide utilization rates for nurse mid-wife services. We may be able to obtain more detailed claims information on these services in selected states from our new tape-to-tape data base which is currently being collected by SysteMetrics (see the answer to question 1 in my letter of April 17).

As state coverage of these services grows, we expect that more nurse midwives will participate in the Medicaid program and will seek reimbursement for the delivery of pre and postnatal services to our eligibles.

8.Q. Volume III of Securing Access to Health Care, published by the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research (March 1983) contains a study by Janet B. Mitchell and Jerry Cromwell, "Access to Private Physicians for Public Patients: Participation in Medicaid and Medicare." This study shows that OB-Gyn specialists are among the least likely of all physicians to accept Medicaid patients, and these physicians spend a relatively low proportion of their time with Medicaid patients. Please specify all efforts taken or anticipated to improve the participation of these specialists in serving Medicaid-eligible women.

A. I have asked the State Medicaid Directors to discuss this issue along with other matters related to preventive child health services during their next national conference scheduled for May 8 in Chicago, Illinois. I will be happy to work with them to increase participation by OB-Gyn specialists in the Medicaid program. However, I believe it is also important to recognize, as I noted before, that prenatal services may be delivered by a variety of qualified practitioners (including nurse-midwives and family practice physicians) and in a variety of settings such as (individual or group practices, clinics, hospital outpatient departments, HMOs, etc.).

9.Q. According to the testimony of Dr. Brandt and HCFA-funded and other research which we have seen, quality prenatal care can have an impact on reducing low birth weight and infant mortality rates. Given the importance of quality prenatal care please indicate:

a. To what extent does HCFA or do state Medicaid agencies have data on the content of prenatal care for which Medicaid pays? Please specify the data now available and the steps undertaken or anticipated to fill gaps in the available data.

b. Why HCFA has not relied upon the ACOG standards as has the PHS?

c. The method and extent to which HCFA now monitors the quality of services financed by Medicaid?

d. The findings as to any deficiencies identified.

e. What plans have been made or are anticipated to improve the monitoring of quality and to improve quality where deficiencies have been or may be identified?

A. In answer to HCFA's data on prenatal services, see the answer to question 1 in my letter of April 17.

States have the ultimate responsibility for determining the standards applicable to noninstitutional services. They may rely on a number of state and national resources for assistance in setting these standards, including guidance from the American College of Obstetricians and Gynecologists.

Current law and regulations require each state Medicaid plan to provide for methods and procedures relating to the utilization of care and services. However, the specific mode of Medicaid utilization review (UR) is left more to the discretion of individual states and is integrated into its comprehensive system of program utilization control (UC). The basic Medicaid UC requirements call for the Medicaid state agency to implement a statewide surveillance and UC program that safeguards against unnecessary or inappropriate utilization and against excess payments, and that assesses the quality of services. Included among these requirements the state program must provide for:

a. an on-going evaluation, on a sample basis, of the necessity, quality and timeliness of the services to promote the most effective and appropriate use of services;

b. a post-payment review process that allows for the development and review of recipient utilization profiles; provider service profiles; and exceptions criteria;

c. a written plan of care established and periodically reviewed and evaluated by a physician (or other involved personnel) for individuals receiving institutional care; and

d. each institution must have a program under which medical personnel, not directly responsible for the patient's care, review the services provided to determine if they are medically necessary and appropriate, and are delivered in the most effective, efficient, and economical manner possible.

In accordance with statute, states are required to make "quarterly showings satisfactory to the Secretary" that they are meeting the UC requirements relating to institutional services. Further, the Secretary is required to validate the states quarterly showings through on-site surveys at a sampling of institutions. The law also requires that when states fail to comply with these UC requirements, a fiscal reduction be made in their Federal matching grants for Medicaid. In addition, states review quality of care in their survey and certification processes for institutional providers. Data relating to the sanctioning of providers for program fraud and abuse, including improper delivery of services, is maintained by the Office of the Inspector General.

States may be deemed to meet certain of the requirements for utilization and medical review if they contract with a Professional Standards Review Organization (PSRO) for review of services that are not inconsistent with the PSROs mandated review functions. Federal funds support 75 percent of a state's costs attributable to PSRO review of Medicaid services.

10.Q. Please describe how you intend to see that HCFA and state Medicaid programs take advantage of PHS research findings and service delivery experience which can contribute to the more effective delivery of Medicaid services in the prevention of infant mortality.

A. At the May 8 conference of State Medicaid Directors in Chicago, I have asked the PHS to present a summary of their research findings and service experiences related to factors affecting infant mortality.

PHS and HCFA have also discussed the issuance of guidance on the positive impact of early prenatal care, the early identification of high-risk pregnant women and infants, standards of care, and the comprehensiveness of health care services. When completed, this material would be disseminated to HHS' regional offices, state Medicaid agencies, and state health departments as part of our normal issuance process.

11.Q. Please summarize and provide the data showing the number and proportion of Medicaid-eligible women who deliver each year without:

- Any prenatal care;
- Any prenatal care prior to the third trimester;
- Any prenatal care prior to the second trimester;
- Prenatal care meeting the frequency standards embodied in the ACOG guidelines; and
- Prenatal care meeting the quality standards embodied in the ACOG guidelines.

A. Since Medicaid is a vendor payment system that relies on data from reimbursement claims submitted by providers for their services, we cannot supply information on recipients who do not use services. The PHS may be able to provide you with this type of information; however, since their data source will be the birth certificate which does not contain income nor health insurance status, it will be impossible to provide you with statistics specifically on Medicaid-eligible women.

I hope this information answers your concerns.

Sincerely yours,

Carolyne K. Davis

Carolyne K. Davis, Ph.D.

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U.S. House of Representatives
Subcommittee on Oversight and Investigations
of the
Committee on Energy and Commerce
Washington, D.C. 20515

May 9, 1984

Dr. Edward N. Brandt, Jr.
Assistant Secretary for Health
Department of Health and Human Services
200 Independence Avenue, S. W.
Washington, D. C. 20201

Dear Dr. Brandt:

As you know, at the time of the March 16, 1984 hearing on infant mortality, I was concerned about the position taken by the Department regarding information transfer to Congressional oversight committees. In her letter of March 1, 1984, Acting Assistant Secretary for Legislation Teresa Hawkes indicated that there was some sort of screening process within the Department of Health and Human Services (HHS):

> "to determine that they [the files] contain no information (such as trade secrets, patient specific material or grand jury information) to which access would be restricted by law." (See letter of March 1 attached.)

I wrote to Secretary Heckler on March 5, ten days prior to the hearing, to raise concerns about a series of procedural issues involved in that investigation, including the restrictions cited by Ms. Hawkes (see letter of March 5 attached). Because neither the Secretary nor anyone on her behalf had responded to my letter of March 5 by the day of the hearing, I asked you to clarify the position of the Department at that time.

You raised your personal concern about patient specific information and requested that the record be left open for a further explanation by the Department of its legal interpretation of the obligation to cooperate with the Congress with regard to the transfer of information pursuant to a Congressional oversight investigation.

We are taking this opportunity to clarify the record in two respects. First, there should be no misunderstanding that the explanation of the Department as presented in your letter of April 17, 1984, (see answer to question #7 attached) is inadequate for reasons to be set out herein. Second, the Subcommittee is also very concerned about protecting the confidentiality of patient specific information.

Presumably, the content and legal authority for your answer to question #7 was provided by the Office of Legislation and the Office of General Counsel as the very same language appeared in Mr. Scruggs' response to questions from Senator Baucus of the Senate Finance Committee with regard to his nomination for Assistant Secretary of Legislation. While it is clear that the Congress drafted all of the cited statutes to restrict transfer of such information by administrators to the public, it is equally clear that the Congress had neither the intention nor the authority to abrogate its Constitutional authority to oversee the operations of the Executive Branch. Your answer lacks any reference to the Constitution whatsoever.

The Surpeme Court has confirmed repeatedly the breadth of Congressional investigatory power. It has confirmed the long-standing principle that "[t]he scope of the [Congressional] power of inquiry ... is as penetrating and far-reaching as the potential power to enact and appropriate under the Constitution." Eastland v. United States Servicemen's Fund, 421 U.S. 491, 504 n.15 (1975), quoting Barenblatt v. United States, 360 U.S. 109, 111 (1960). That power extends "over the whole range of national interests concerning which Congress might legislate or decide upon due investigation not to legislate ...." Barenblatt, 306 U.S. at 111. In Watkins v. United States, 354 U.S. 178, 187 (1957) the Court explained that Congressional investigatory "power is broad. It encompasses inquiries concerning the administration of existing laws, as well as proposed or possibly needed statutes. It includes surveys of defects in our social, economic, or political system for the purpose of enabling the Congress to remedy them."

The Congress guards zealously this broad Constitutional power to investigate. The Department of Health and Human Services has cited no authority holding that when Congress adopts statutes intended to control release to the public of information by administrators, Congress intends to arm the administrators with authority to shield them from Congressional oversight. We are aware of no such authority. Faced with precisely this question in a series of lawsuits over the Federal Trade Commission's (FTC) trade secrets statute, the courts refused to support the withholding of information from Congress. *See FTC* v. *Owens-Corning Fiberglass Corp.*, 626 F.2d 966, 970 (D.C. Cir. 1980); *Exxon Corp.* v. *FTC*, 582, 589 (D.C. Cir. 1978), *cert. denied*, 441 U.S. 943 (1979).

The chief statute cited to us in this regard, 18 U.S.C. § 1905, illustrates well the fact that Congress has never intended to curb its Constitutional powers of investigation by arming agencies with immunity from oversight. That statute prohibits disclosure of trade secrets and other confidential commercial information *unless "authorized by law."* Patently, the Constitutional power of investigation constitutes authority in law to obtain information. *See, e.g., Eastland, supra*. Thus, the courts in the FTC cases cited above declined to withhold information under 18 U.S.C. § 1905. Indeed, even the Attorney General has acknowledged that Congressional oversight is not to be blocked by citing the statute. 41 Op. Atty. Gen. 221 (1955).

That statute, and the other HHS confidentiality statutes mentioned by the Department, are like the Commerce Department's confidentiality statute under which information vital to oversight was withheld, initially, in 1975 from the House Commerce Committee investigation of nonenforcement of the laws concerning corporate compliance with the Arab boycott. Secretary of Commerce Morton went to the brink of contempt of Congress, and then yielded on complying with the oversight demands. *See Contempt Proceedings Against Secretary of Commerce Rogers C.B. Morton: Hearings and Related Documents Before the Subcommittee on Oversight and Investigations of the House Committee on Interstate and Foreign Commerce*, 94th Cong., 1st Sess. (1975).

Within this clear legal framework the Rules of the House of Representatives provide for special protection of information:

> "Whenever it is asserted that the evidence or testimony at any investigatory hearing may tend to defame, degrade, or incriminate any person."
> (Rule 11 K)

If a request is made, the Members can vote to accept such evidence or testimony in executive session.

On a more personal level, let me assure you that I cannot now think of circumstances under which I would compel transfer of patient names. However, as I mentioned to you on March 16, our Committee files routinely contain many highly sensitive documents relating to national security, nuclear safeguards, the private business of high government officials, patents and a broad spectrum of trade secrets. These documents have always been treated carefully and confidentially and this will continue to be the case.

I hope these clarifications of the Constitutional role of Congressional oversight and the time honored procedures set out in the Rules of the House for handling confidential matters will facilitate cooperation between HHS and this Committee. In dealing with a number of agencies of the executive which regularly work with highly sensitive matters, (i.e., U.S. Department of Energy, Securities and Exchange Commission) these procedures are carried out with relative ease. I look forward to similar ease in working with you in the future.

Sincerely,

John D. Dingell
Chairman
Subcommittee on
Oversight and Investigations

JDD:PPdb

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Office of the Assistant Secretary
for Health
Washington DC 20201

TO: MSB
PKY
TK

MAY 16 1984

Honorable John D. Dingell
Chairman
Subcommittee on Oversight and Investigations
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

Thank you for your letter of May 9 regarding your views on information transfer to Congressional oversight committees. I appreciate the concerns you have expressed and the care with which you assume responsibility for various sensitive documents and other executive branch information. In particular, your sensitivity to medical records and their privacy is of importance and personally reassuring. I trust that we will be able to continue working together in the future to facilitate the exchange of information with the Congress.

Sincerely,

Ed Brandt

Edward N. Brandt, Jr., M.D.
Assistant Secretary for Health

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MAY 17 1984
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TESTIMONY

OF THE

AMERICAN COLLEGE OF NURSE-MIDWIVES

The American College of Nurse-Midwives (ACNM) is pleased to be able to submit testimony to today's hearing on infant mortality. Certified nurse-midwives have a 60 year history of experience of clinical practice among poor and sociologically vulnerable families in this country. The members of the College are hopeful that these hearings will help renew the national commitment to reducing infant mortality and improving the health of American families. We are happy to offer our expertise to the Committee and members of Congress and we look forward to working with you.

The persistent and unacceptably high rate of low birch weight and premature births, particularly to poor, adolescent and black women, is among the most serious and urgent problems facing the nation. It is certainly the most serious issue confronting maternal and child health care professionals. If we providers cannot come together with policy makers and the public to alleviate this problem, we will have all fundamentally failed. We should be hopeful, however, because this is one social problem which has effective, time-tested remedies -- both political and clinical-- at hand.

No one knows what the physiologic cause of low birth weight and premature birth is, although we know that mothers who are adolescent, poor and/or black are much *more* likely to have small or premature babies. No one knows the physiological cause underlying the effectiveness of prenatal care, although we know that pregnant women who receive prenatal care are much *less* likely to have small or premature babies. Two bodies of research, one old and the other new, now point to answers to these two related physiologic puzzles. The answers will have significant implications for governmental policy makers, health care providers and public health administrators.

One body of date has been accumulating for a long time. Numerous studies, beginning as early as the turn of the century, document the effectiveness of prenatal care. Many of the studies conducted since 1925 report on the effectiveness of care given by certified nurse-midwives to women who had received little or no obstetric care prior to the introduction of nurse-midwifery into their community. In all cases, infant death rates fell dramatically, usually to below the national average. A major finding of these studies is that prenatal care utilization rates also increased in these communities once nurse-midwifery care became available. Prenatal care was effective in improving infant outcomes when utilized and it was utilized more frequently. Although these were descriptive, retrospective studies done without the benefit of an appropriate control group, they demonstrate that nurse-midwifery care is safe and that nurse-midwifery care retains clients in the health care system. Perhaps the most important result of these studies is to prove once again that prenatal care is effective, even though its mechanisms of effectiveness have remained a mystery.

Three recent studies of nurse-midwifery care are worth reviewing because they do contain control groups and because their findings are similar to those of previous studies. All three studies looked at matched populations cared for by nurse-midwives or physicians. In all three studies, clients who developed medical complications and became physician clients remained in the nurse-midwife data pool and did not appear in the physician statistics. Two studies, one conducted in a health maintenance organization in Puget Sound, Washington, and the other at the University of Mississippi's Medical Center obstetric clinic, had similar findings. The indicators related to pregnancy outcome, such as birth weight and prematurity rates, were essentially the same in the physician patients and the nurse-midwife patients. The indicators related to the process of obstetrical care were different. The physician clients were more likely to have had obstetrical interventions, such as forceps (in Mississippi), episiotomies, induction or augmentation of labor, and ultrasound examinations (in Washington), than were the nurse-midwife clients. The nurse-midwife clients in Washington were more likely to keep their prenatal appointments and to come in for additional, problem-oriented visits. Nurse-midwife clients in Washington expressed more satisfaction with their care than did the physician clients.

The third controlled study differed from the other two in that the outcome indicators showed a difference in care of the two provider groups and the study looked at a particularly vulnerable population, poor, pregnant teenagers. The young mothers in the study group received care in an Adolescent Obstetric Clinic at the Medical University of South Carolina. The control group was established by using matched birth and death certificates from the South Carolina State Maternity Data System. Clients in both groups were receiving prenatal care and were of low socio-economic status. Two nurse-midwives coordinated a multi-disciplinary team of social workers, a nutritionist, obstetricians and a psychiatrist, which provided care to the teenagers. The nurse-midwives coordinated all program services, evaluated and managed the case load and saw each teenager at every prenatal visit. The results showed that the low birth weight rate among the study group was 9.1 percent, which was significantly lower than the 12.7 percent rate in the control group. The low birth weight rate among patients under age 15 was 8.8 percent in the study group and 21.0 percent in the control group.

All of the controlled and uncontrolled studies point to the same three conclusions: prenatal care improves infant outcome significantly; nurse-midwifery care is at least as effective as physician care; and, nurse-midwifery care has a documented record of improving utilization of prenatal care and increasing client satisfaction with pregnancy care. In addition, the most important finding of the South Carolina study is that multi-disciplinary team care managed by nurse-midwives resulted in significantly better outcomes for pregnant women who were also poor and adolescent.

The findings of the South Carolina study also point to the second, and newer, body of research into the causes and prevention of low birth weight and premature births. Evidence is accumulating which strongly suggests that stress and smoking are the primary causes of low birth weight and premature births. The physiologic link between these factors is not completely clear, but the finger of blame points toward decreased blood flow to the uterus caused by vascular constriction. The link between smoking and decreased uterine perfusion is fairly well established, but little research has been done to uncover an explicit physiologic link between stress and pregnancy outcome. There is plenty of implicit evidence of this link, however, in all the research which documents the effectiveness of prenatal care and of nurse-midwifery care.

Prenatal care may have a two part mechanism for reducing the stress of pregnancy and particularly the stress of being poor, black and/or adolescent -- and pregnant. Once a client has had a first prenatal visit, she makes the decision to remain in care in part on the basis of how the care providers treated her. If she trusts the people enough to stay in prenatal care, she may receive access to services which may relieve significant areas of stress in her life, such as inadequate food supplies, inadequate income and inadequate shelter. All of these basic areas of life may be very problematic for her and the problems may be exacerbated by pregnancy. Food stamps, Medicaid, Aid to Families with Dependent Children and other social services can make a critical difference in the stress level and the well-being of a pregnant woman.

The impact of developing a trusting relationship does not end with increased access to social programs. Pregnancy can, and usually does cause fears and anxieties which can only be alleviated with education about pregnancy, childbirth and parenting and with personal attention from a caring, sympathetic health care provider. All of the teenagers in the South Carolina study had access to the same state supported services and basic medical services. The study group had additional human attention and a consistent care provider throughout pregnancy. It is completely reasonable to conclude that a significant link exists between the client's experience of a caring, human relationship with her health care provider and the obviously therapeutic impact of the kind of care provided in the South Carolina study. Something about the care provided in the South Carolina study caused those pregnant teenagers to have significantly better outcomes than their matched peers; that "something" appears to be the stress-reducing effect of a supportive personal relationship between the clients and their providers.

The large body of old and new research on prenatal care, nurse-midwifery care and the physiology of pregnancy and the decades of experience of maternal and child health care in this country have important implications for policy makers, administrators and health care providers.

Prenatal care must be available and accessible to women in order for it to be used. Care that is too expensive, too far away, unavailable at convenient times, too time consuming or simply not there is care that will go unused. In order to remove barriers to prenatal care, the American College of Nurse-Midwives urges the Congress to direct the Department of Health and Human Services to implement the recommendations of the Public Advocates' "Petition to Reduce the Incidence of Low Birth Weight and Resultant Infant Mortality," filed in 1983. The College also urges the Congress to increase the appropriation levels for the Maternal and Child Health Block Grant and the Primary Care Block Grant.

Prenatal care and particularly the primary providers of that care must be acceptable to clients and there must be a sufficient number of providers to staff the hospitals and clinics which serve women at risk of having small or premature babies. The College urges the Congress, in order to create a sufficient supply of appropriate providers, to reauthorize the Nurse Training Act with adequate funding levels and to direct the Division of Nursing and the Division of Maternal and Child Health to increase the annual number of graduates from nurse-midwifery and obstetrical/gynecological nurse practitioner education programs.

Certified nurse-midwives across the country believe that the Congress and the executive agencies have a national responsibility to plan and implement strategies to lower significantly the overall low birth weight and prematurity rates, and particularly to lower the shockingly high -- and rising-- rate of infant mortality among poor, black and teenage women. The waste of human lives and potential and the suffering of American families cannot continue. We know that many members of this Committee, the Congress and the executive agencies are commited to improving maternal and child health in the United States and we are eager to help in your efforts.

Thank you.

PRESERVING ESSENTIAL SERVICES:
Effects of the MCH Block Grant On Five Inner-city Boston Neighborhood Health Centers

Executive Summary

Penny Hollander Feldman, Ph.D.
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June 1984

Introduction

Along with three other block grants in the health area,[1] the Omnibus Reconciliation Act of 1981 created the Maternal and Child Health (MCH) Block Grant, incorporating eight prior categorical programs funding services for mothers and children.[2] The MCH block grant enhanced states' flexibility in allocating former categorical funds; at the same time, it provided fewer federal dollars in FY 1982 than in FY 1980 or 1981.[3]

This report summarizes a study of the effects of the MCH block grant on five inner-city Boston neighborhood health centers[4] serving low income, predominantly black and Hispanic mothers and children.

Study Purpose

The study addressed three questions:

(1) How did the MCH block grant affect the financial health of agencies dependent on federal and state MCH funds?

(2) How were the provision and use of services for pregnant women and for children affected by changes in MCH funding?

(3) Was the "need for service"--measured by trends in neonatal and infant mortality rates--increasing or declining during the study period in the inner-city communities served by neighborhood health centers dependent on MCH funds?

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[1] The three other health block grants created by the Reconciliation Act of 1981 were the Alcohol, Drug Abuse and Mental Health, Preventive Health Services and Primary Care block grants

[2] Categorical programs included in the MCH block grant were Title V maternal and child health services, Title V crippled children's services, casework for disabled children receiving supplemental security income benefits (SSI-DCP), lead poisoning prevention, Sudden Infant Death Syndrome, adolescent pregnancy prevention, genetic disease testing and counseling and hemophilia diagnostic and treatment centers

[3] Federal appropriations increased in FY 1983, as the result of the Emergency Jobs Appropriation Act, but fell again in FY 1984

[4] The centers are Dimock, Harvard, Martha May Eliot, Roxbury Comprehensive and Whittier health Centers, in the Roxbury/Dorchester area of Boston

Study Method and Data Sources

Interview data were combined with state and local statistics[5] and agency management records to produce case studies of five inner-city neighborhood health centers dependent on MCH (Title V)[6] funds in 1980, two years preceding the block grant.

Changes in the financial status of the five centers were measured by analyzing 1980-1983 trend data on center revenue by source and on center expenditures. Changes in service provision for mothers and children were measured by analyzing 1980-1983 trend data on obstetric, adolescent pregnancy and pediatric visits. Need for services in areas served by the centers was assessed by analyzing neonatal and infant mortality rates for service area census tracts for the period 1980 through 1982 (1983 data were not available). Most of the data reported in this summary are aggregate measures combining the experience of the centers in the study.

Neighborhood Characteristics of Centers Studied

The five centers included in the study serve the Roxbury, North-South Dorchester areas of Boston. All are in areas designated as "medically underserved," as of January 31, 1980. The census tracts in which the centers are located ranged from 60-80 percent black and 6-30 percent Hispanic in 1980. Unemployment in the areas served by the centers ranged from 6 to 19 percent in 1980, while median family income averaged $11,500; approximately 25 percent of families in the service areas were on AFDC. Two other neighborhood health centers that also received Title V funds in 1980 were excluded from the analysis because they served non-inner-city areas that were more affluent, less welfare-dependent and more than 96 percent white.

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[5] State and local statistics were obtained from the Massachusetts Department of Health, the Massachusetts RateSetting Commission and the Boston Department of Health and Hospitals.

[6] All of the centers received Title V funds for Maternal and Infant Care (MIC) and/or Children and Youth (C&Y) projects in 1980. Title V, with its formula grants and its special MIC and C and Y projects, was folded into the MCH block grant as a result of the Omnibus Reconciliation Act of 1981.

Financial Status of Neighborhood Health Centers

- FY 1982 was a financially disastrous year for the centers studied:

  (1) **MCH project funds**, which on average accounted for 15 percent of gross revenues in FY 1981, fell 30 percent in FY 1982.

  (2) **Other federal, state, local and private grants**, which on average accounted for 47 percent of gross revenues in FY 1981, fell 16 percent in FY 1982.

  (3) **Medicaid revenues**, which on average accounted for more than 20 percent of gross revenues in FY 1981, fell 3 percent in FY 1982, as the Boston AFDC caseload fell 18 percent, reducing Medicaid eligibility.

  (4) **Direct patient charges (self-pay) and charges to other third party payers**, which accounted for approximately 14 percent of gross revenues in FY 1981, together increased 22 percent in 1982.

  (5) Even though **bad debt** declined in absolute dollars in FY 1982, a function of both declining utilization and increased collection efforts, **net revenues** (gross revenues minus bad debt) fell approximately 7-10 percent that year.

  (6) Three of the centers decreased their **expenses** in FY 1982; however, "savings" were achieved principally by cutting the range of services provided.

- Centers' revenues generally increased in 1983, but their financial condition remained shaky:

  (1) **MCH project funds** fell 7 percent--a smaller cut than the previous year.

  (2) **Other grant revenues** increased 15 percent.

  (3) **Medicaid revenues** increased 12 percent.

  (4) **Self-pay and other third party charges** rose 35 percent.

  (5) Although **bad debt** increased substantially, **net revenues** rose approximately 10 percent.

(6) However, while **net revenues** increased 10 percent, **expenses** increased nearly 20 percent on average, threatening the financial viability of the centers.

- Overall, the centers in our study were in worse financial condition in FY 1983 than in FY 1980. In constant (1967) dollars:

  (1) MCH project funds were 54 percent lower in FY 1983 than FY 1980.

  (2) Other grant funds were 16 percent lower in FY 1983 than FY 1980.

  (3) Despite the fact that **Medicaid** revenues were up 7 percent over FY 1980 and **self-pay and other third party charges** were up 50 percent, **bad debt** had increased, so that **net revenues** were down approximately 15 percent in FY 1983, compared to FY 1980.

  (4) Expenses were 13 percent lower in FY 1983 than 1980, but reduced expenses reflected cuts in the comprehensiveness of services offered. Four of five centers were operating with **deficits**, while the fifth was emerging from bankruptcy and receivership and avoided a deficit only by securing "extraordinary" income from special grants and donations.

Service Provision and Use

- In response to their worsening financial situation, centers cut staff and narrowed the range of services provided. Hardest hit were:

  (1) Community outreach efforts to identify individuals and families at risk;

  (2) social services, and

  (3) educational activities aimed at improving health outcomes.

- Use of centers' services dropped significantly in FY 1982:

  (1) Total visits fell 14 percent.

  (2) Pediatric visits fell 12 percent.

  (3) Obstetric/gynecological visits dropped 14 percent, despite a 4 percent increase in births in the census tracts served by the centers.

- **Four factors help explain the drop in center use:**

(1) A general recessionary effect, leading some economically stressed families to postpone non-emergency primary care in order to pay for more pressing food and/or housing needs;

(2) An 18 percent drop in the Boston AFDC caseload, reducing Medicaid coverage for mothers and children and imposing additional financial burdens on those who might seek care;

(3) The deterrent effect on potential center users of negative publicity focusing on health and welfare cuts, on the "dire threat" (Boston *Globe* headline of June 1982) to neighborhood health centers and on their need to increase patient billing and collections;

(4) Lay-offs of centers' outreach staff, whose job had been to identify and offer services to high risk pregnant women and young children in the community.

- Despite an increase in total visits to the centers in FY 1983, pediatric and OB/GYN visits continued to decline (4 percent and 1 percent respectively), although at a lower rate than in FY 1982.

- The continuing, albeit slower decline in use of pediatric and OB/GYN services may reflect the continued effects of factors at work in FY 1982--especially reduced AFDC eligibility and reduced center staffing for MCH outreach and educational activities.

- The increase in total visits in FY 1983 reflects, in part, the efforts of centers to attract new, paying, clientele to offset cuts in grant income over the period FY 1980-1983; centers instituted evening and various specialty clinics aimed at employed clients with third party coverage.

- While data on total visits, pediatric and obstetric visits for the five centers are complete for the period 1980-1983, data on use of a more comprehensive array of services--including outreach, social services, family planning, nutrition, mental health, etc.--are insufficient to allow trend analysis.

Need for MCH Services in Communities Served By the Centers

- In 1980, the infant mortality rate in the census tracts served by the five centers was 16.7 deaths per 1000 live births--nearly a third higher than the national rate of 12.6/1000 in 1980.

- In 1981, while obstetric and pediatric visits to the centers increased 2 percent, the infant mortality rate in surrounding census tracts declined 12 percent to 14.7/1000 (that rate was still 26 percent higher than the 1981 national average).

- In 1982, as pediatric and obstetric visits to the centers were declining, the infant mortality rate in surrounding census tracts rose 46 percent to 21.5/1000. Altogether there were 86 infant deaths out of 4001 births in the census tracts studied in 1982; there were 13 more deaths observed than expected under a situation of random variation. The 21.5/1000 infant mortality rate observed in 1982 was just about twice the national rate (11.2/1000) reported for 1982.

Conclusions

- In Boston, preventive and primary care services for mothers and children funded initially by Title V and subsequently by the MCH block grant sustained cuts throughout FY 1981-1983; the cuts were deepest in FY 1982, the year of transition to the block grant.

- Inner-city Boston neighborhood health centers dependent on MCH funds in 1980 suffered a deterioration in their financial health during 1982 and 1983, as other grant revenues, self-pay, and charges to other third parties failed to fully compensate for cuts in MCH revenues, reduced AFDC-Medicaid eligibility and increases in bad debt and free care; centers' net revenues in constant (1967) dollars were lower in FY 1983 than in FY 1980, and combined deficits were larger.

- Decreases in the use of obstetric and pediatric services at the centers studied paralleled and to some extent can be attributed to cuts in MCH funding--especially layoffs of center outreach workers--and to reductions in the AFDC-Medicaid caseload, which curtailed financial access for poor mothers and children.

- While MCH funding and use of MCH preventive and primary care services were declining, infant mortality rates in census tracts served by MCH-dependent centers were increasing; thus need was accelerating while resources available to address the need were being curtailed.

- Given financial barriers to access in the inner city areas studied, their relatively high infant mortality rates and evidence of worsening experience in 1982, funds for preventive and primary MCH services in those areas should be expanded, rather than reduced, to promote equity, access and improved infant outcomes.

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Statement by

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Before the

Subcommittee on Oversight and Investigations
Subcommittee on Health and the Environment
Committee on Energy and Commerce
U.S. House of Representatives

In Re: Hearings on the High Incidence of
Infant Mortality and Low Birth Weight
Among Black Infants in the United States

Washington, D.C.
March 16, 1984

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The Chicana Rights Project for the Washington, D.C. office of the Mexican American Legal Defense and Educational Fund (MALDEF) is pleased to submit a statement before the House Committee on Energy and Commerce Subcommittees on Oversight and Investigations and Health and the Environment. MALDEF is a national civil rights organization dedicated to preserving the civil and constitutional rights of Hispanics in the United States. We currently have offices in San Francisco, Los Angeles, Denver, Sacramento, San Antonio and Chicago, as well as in Washington, D.C.

MALDEF's Chicana Rights Project (CRP) was established in 1974. The project does research and litigation designed to eradicate discrimination against Hispanic women, primarily in health, employment and education. Among the complaints filed by the CRP is Ordonez v. Mercy Hospital and Solis v. Madera Community Hospital, which deal with the duties of hospitals to provide affordable care to pregnant women.

MALDEF is concerned with the widening gap of infant mortality. For this reason, we are one of the petitioning organizations in the Public Advocates petition to Secretary of Health and Human Services, Margaret Heckler, that is the subject of today's hearings. We at the Chicana Rights Project believe that our years of experience in working on health issues, combined with our interest and committment to ending discrimination against women, especially Hispanics, means that MALDEF will bring a perspective to this hearing that can be helpful in narrowing the widening gap of infant mortality and low birth weight between whites and minorities in this country.

Data Collection and Hispanics

The CRP works to increase poor women's access to good quality health care. Maternal and child health issues are a high priority for the Project. Naturally, we are gravely concerned about the issue of infant deaths in our community. However, there is a serious problem with respect to data collection and infant mortality related to Hispanics in the United States. It is difficult to obtain accurate data on infant deaths among the Hispanic community. Much of the information in studies released documents disparities between blacks and whites only, or sometimes whites and non-whites. However, one must not assume that Hispanic birth rates correspond with white birth rates just because there is little or no data on Hispanics. Hispanics do have similar problems as blacks with low birthweight and high infant mortality even though there is not as clear of a statistical picture for Hispanics as exists for blacks.[1] Where statistics on Hispanics are kept, their deaths and premature births are significantly higher than for whites. An example is Los Angeles. In 1981, the County ended a fifty year policy of providing for prenatal care and other services to the poor. The women who benefitted from these programs had no health insurance and many were Hispanic. The County's new policy required a pre-payment of $20-30 per visit. Prenatal visits to health clinics and outpatient departments dropped by 21%; broken appointments skyrocketed to 30 to 50% and the premature birth rate increased by 7.4%.[2]

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[1] See LOS ANGELES TIMES, "Gap in Infant Death Rates Widens", June 30, 1983.

Due to the fear that instituting prepayments would directly result in an increased infant mortality rate, MALDEF joined other black, health and women's organizations in filing a California petition for rules and regulations to declare prenatal care a public health service and to establish standards for access to such care by low income women. The petition documented that poor and minority health districts in Los Angeles county were those that had the highest risk factors and the lowest chances that women living there would bear a live, healthy newborn. Those heavily populated by blacks and Hispanics had the highest fetal deaths, infant deaths, neonatal and post-natal deaths.[3] This information should not come as a surprise, since the Hispanic population shares with blacks and other minorities the indicia of poverty and underemployment that is closely correlated to high risk pregnancies and which result in higher infant mortality rates.

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[2] *Factual Memorandum and Argument in Support of Petition for Rulemaking to Declare Prenatal Care a Public Health Service and to Establish Standards for Access to Such Care by Low Income Women,* submitted by Petitioners County Health Alliance, *et al.* to the California State Department of Health Services, June 29, 1982 at 21 and 26.

[3] *Id* at 9.

Hispanics make up the second largest minority population in the United States, 8.3%. Blacks are the largest with 10.7%.[4] Yet, there is inadequate data on Hispanics. Only in recent years have national statistics been kept on Hispanics begun to be collected. Federal data on Hispanics must collected and made available to the public.[5] The federal government has an obligation through its agencies to provide data so that we may develop health policies that effectively address the needs of the Hispanic community. In this case, statistics are a matter of life and death. Pregnancy related data and federally funded care is especially critical for Hispanic women because they have the highest birth rate in the nation. They face serious health risks because of their high rates of poverty.[6]

Additionally, many Hispanics have problems because they are part of a language minority. Data must be collected to determine if language barriers result in a significant reduction in access to necessary health care and contribute to an increase in infant mortality.

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[4] The Robert Wood Foundation "Updated Report on Access to Health Care for the American People", Special Report, Number One/1983.

[5] HHS is currently conducting a (NCHS) survey on Hispanic health in the U.S. Since the study is not completed, we have no way of knowing whether or not it contains the detailed information on infant mortality and prenatal care that is already documented within the black and white populations.

[6] See, Report from the U.S. Commission on Civil Rights, Disadvantaged Women and Their Children, Clearinghouse Publication 78, May 1983.

The Reagan Administration's Record on Infant Mortality

Information on the dire consequences of the failure to provide comprehensive prenatal care to all poor, pregnant women has been well documented in the Public Advocates petition, as well as in testimony and reports submitted for the record today. Yet, the Administration's response is that "[r]educing infant mortality is a complex task with no simple and quick solution..." and insists that further study is necessary before effective intervention strategies can be developed.[7]

The Administration and the Department are aware of the increasing gap of the infant mortality rate between whites and minorities. They also acknowledge that there has been a decline in prenatal care for black women in the current decade since Reagan took office.[8] Yet, according to Assistant Secretary of HHS, Dr. Edward Brandt, "quality prenatal care is an important intervention opportunity. There is little question as to the value of prenatal care in improving the health of pregnant women and preventing or reducing the complications of pregnancy and labor..."[9]

The Reagan Administration must not be allowed to take credit for past successes in the programs it is trying its best to eliminate. Moreover, the Administration must be prevented from further cutting funds for programs known to help reduce infant mortality. Such programs include, Title V Maternal and Child Health Care, Community and Migrant Health Programs, Medicaid, AFDC, and WIC. The list goes on. Perhaps most important, the Administration must not be allowed to fail to address this critical national health problem by claiming it needs further study.

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[7] Statement by Edward N. Brandt,Jr. M.D., Assistant Secretary for Health, before the Energy and Commerce Subcommittees on Oversight and Investigations and Health and the Environment, U.S. House of Representatives, March 16, 1984, p.2.

[8] Id at 6.

[9] Id at 5.

In contrast to the Reagan Administration's approach, the Public Advocates petition calls for a national standard for comprehensive prenatal care and seeks an educational program to inform women of the importance of prenatal care. It also calls for an expansion of states' maternal and child health programs to include all needy women and children. These remedies designed to reduce infant mortality are certainly more reasonable and absolutely more cost efficient than the tremendous expense in caring for low birth weight associated illnesses and their life-long effects. The latter costs will devour any immediate savings and cost the government billions.

In conclusion, the Energy and Commerce Committee is to be commended for holding hearings on the infant mortality gap and the need for prenatal care. While we would welcome long term legislation that would establish comprehensive prenatal care for all poor pregnant women, we urge Congress to pressure the Administration to act immediately on the Public Advocates petition.

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